

United States  
Circuit Court of Appeals  
For the Ninth Circuit. 1094

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Transcript of Record.  
(IN TWO VOLUMES.)

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PORTERVILLE CITRUS ASSOCIATION, a Corporation,

Appellant,

vs.

FRED STEBLER,

Appellee.

VOLUME II.  
(Pages 385 to 840, Inclusive.)

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Upon Appeal from the United States District Court  
for the Southern District of California,  
Northern Division.

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(Testimony of N. J. Ofstad.)

Q. Now, was there any other form of mechanism—

The COURT.—Are you going to put in a drawing of that plate?

Mr. ACKER.—I think that Mr. Lyon stated that Mr. Knight had supplied it.

The COURT.—I know, but I wanted to know if you were going to let this stand as it is, or put in a different drawing.

Mr. ACKER.—This sketch of Mr. Knight's, Mr. Parker says, correctly represents the plate.

The COURT.—Then, there is no need of any further testimony about it.

Q. (By Mr. ACKER.) Please state whether means other than the adjustable plate which you have referred to were employed in the said machine for varying the grade outlets of the sizer.

Mr. LYON.—That is objected to as leading and suggestive.

The COURT.—I will overrule it.

Mr. LYON.—Note an exception.

A. There is no other means provided.

Q. (By Mr. ACKER.) Please explain how the fruit flowed from the grade outlets of the sizer toward the receiving bins for the sized fruit? [436]

A. Why, the fruit after it was sized went through the aperture and by gravity run into the bins. When the fruit piled up at one point in the bin, we sometimes pulled it down with our hands, which was the quickest way of doing it, and sometimes we put in a barrier to send the fruit to another point in the bin so as to even the fruit out.

(Testimony of N. J. Ofstad.)

Q. Then if I understand you correctly, if the fruit, for instance, was piling up in a bin, you could move it down by hand to distribute in that bin?

A. Yes, sir.

Q. And then if I understand you correctly, at other times you would employ what has been termed a barrier for accomplishing that purpose for piling the fruit into the bin at any one point? A. Yes, sir.

Q. How were those barriers arranged? Were they permanently fixed to the machine, or were they detachably connected thereto?

A. They were detachable at will; we could take them off or put them in as we wanted.

The COURT.—There doesn't seem to be any controversy about that, Mr. Acker.

Q. (By Mr. ACKER.) Please examine complainant's photo exhibit number 5 and state whether or not during the operation of the machines and while under your control, whether the barrier plates were arranged in the angular manner as shown [437] in the said photographs.

A. The barriers as shown in this photograph were never placed in this position while I was in the employ of the Porterville Citrus Association during the operation.

Q. How long have you been identified with the citrus industry, Mr. Ofstad?

A. 15 or 16 years.

Q. What knowledge, if any, had you of a machine or a sizing and distributing apparatus known as a camel-back machine or sizer?

(Testimony of N. J. Ofstad.)

A. State that again.

Mr. LYON.—Is that supposed to be under your defense in regard to the Arlington patent?

Mr. ACKER.—I want to find what knowledge this witness has.

Mr. LYON.—I object to that question; it is not admissible under the pleadings. There is no prior use or knowledge of this witness pleaded as a defense, and unless counsel states he intends to connect this with some matter which he has pleaded, it is inadmissible in the case, and for the purpose of showing anticipation of any of the patents in suit.

The COURT.—I don't see the relevancy of it, Mr. Acker, whether he had any knowledge about it.

Mr. ACKER.—It is relevant to the issues of this case, your Honor, to show the prior art.

The COURT.—I don't know anything about the patent you [438] are asking about.

Mr. ACKER.—I am not asking about a patent. I am asking this witness, as an expert in the fruit business, the type of machines in use in the fruit industry.

The COURT.—Read the question, I didn't understand it then. (Last question read by the reporter.)

The COURT.—Camel-back machine or sizer?

Mr. ACKER.—That is the name of the machine.

The COURT.—Now, what has that machine got to do with this case?

Mr. ACKER.—Well, you will find, if your Honor please, when we come to the machine that it has a great deal to do with the case as limiting these patents.

(Testimony of N. J. Ofstad.)

The COURT.—I don't know what it has to do with it; that is why I say I don't see the relevancy of the testimony. Have you introduced any patent concerning that matter? What relevancy has that machine got to do with this?

Mr. ACKER.—Well, this machine, if your Honor please, is a device set up in our answer as one of the prior devices in use.

The COURT.—It took me a good while to find it out. You are pleading that as a defense?

Mr. ACKER.—I am pleading that, set up in my answer. I am simply using it under the common name known in the art.

The COURT.—All right, proceed. Objection overruled.

Mr. ACKER.—Read the witness the question.  
[439]

(Last question read by the reporter as follows:  
“Q. What knowledge, if any, had you of a machine or a sizing and distributing apparatus known as a camel-back machine or sizer?”)

A. Why, I operated one machine in our house of which I was foreman at Riverside which we commonly termed as the camel-back, and also I saw a similar machine at Uplands, and I also saw one the first day I was in the business up at Porterville, and afterwards, after I saw the machine in Porterville and at Uplands, and then after I became a foreman of the house up there at Riverside I operated one of the machines.

Q. Please describe the construction of the sizer

(Testimony of N. J. Ofstad.)

which you have referred to as the camel-back sizer?

A. Why, this sizer grader, which we commonly called "The camel-back," it had a rope member as one member parallel to a roller member, or, rather, this roller member was in two sections with a sort of step formation, and performed the sizing, after which, why, the fruit dropped through the aperture, and before reaching the bins the fruit went through chutes. The chutes were so arranged so we could divert it to one bin or more bins by gates in the chutes.

Q. I hand you a photograph, Mr. Ofstad, and ask you whether or not you can identify that photograph, and if so, what is disclosed thereby, and what it relates to? (Handing photograph to witness.)

A. Why, I identify the photograph as a picture of a machine [440] as we called the "camel-back," and which I referred to as would direct the fruit into one or more bins into these chutes.

Q. Did you ever operate a machine of the type illustrated by that photograph?

A. Yes; with one exception, that is, the bins. Our bins were stationary and the bins in that machine were adjustable; that is, could be taken out. I didn't operate that machine, but I operated one so far as the sizing is concerned identically like that.

Q. Where was it? A. At Riverside.

Q. What year?

A. 1900 and—I think it was 1906, when I took the foremanship of the Riverside Heights Number 10.

Q. Riverside Heights Number 10 at Riverside?



(Testimony of N. J. Ofstad.)

A. Yes; and from that up until the season we installed the Parkers.

Q. Now, what constitutes the fruit sizer or grader in that machine which you have testified you used at the time, and how is the fruit runway of that machine constructed?

Mr. LYON.—Well, that is the ordinary Ish grader, or California grader, is it, Mr. Acker? I don't think there is any dispute between us in regard to what is in that photograph.

Mr. ACKER.—Do you admit that? [441]

Mr. LYON.—It is the Ish-California?

Mr. ACKER.—You admit this is the Ish-California?

Mr. LYON.—In the photograph, and that is a gravity system entirely. We will admit that the devices such as were in that photograph were in use prior to the invention by Fred Stebler of the invention of Plaintiff's Exhibit Number 3; that is the one that you—

Mr. ACKER.—I offer the print in evidence and ask that the same be marked Defendants' Exhibit "O."

Q. Please state how the fruit in the said device, after leaving the grade outlet was conducted to the fruit-receiving bins?

A. Why, the fruit after it leaves the grade outlets goes by gravity through these chutes and by—direct straight down into the bins, or to the right or to the left, and was operated by switching those gates in those chutes.

(Testimony of N. J. Ofstad.)

Q. Now, what type of fruit-receiving bin was used in that apparatus?

A. Well, that apparatus there at Uplands, that was a division board in the bench and was detachable.

Q. And could you thereby increase or decrease the width of the bin or the length of the bin? A. Yes.

Q. Please state whether or not the guide strips appearing in the said photo exhibit and which form the fruit runways for conveying the fruit from the grading outlets to the [442] bins are movable or stationary strips?

A. I would have to see the photographs. (Receiving photographs from the Court.) Well, in this particular machine, I am not positive whether it was movable or stationary. I have seen machines where they were—in our own house at Riverside that were stationary, and then again in houses I have seen where they were hinged so as to be movable.

Q. And when and where were those machines used?

A. I think the house up in Porterville, I saw the—that is the first one I saw.

Q. What advantage, if any, flowed from the use in the said apparatus represented by the said photograph of the partitions for the bins being adjustable or removable to increase or decrease the length of the bin?

Mr. LYON.—That is objected to on the ground it is assuming that it does not appear from the evidence if there was any such adjustability.

Mr. ACKER.—I understood the witness to so testify.

(Testimony of N. J. Ofstad.)

Mr. LYON.—The witness says he thinks perhaps they were; he did not say positively they were.

The COURT.—Objection overruled.

A. Read the question; I didn't understand it.

(Last question read by the reporter.)

A. What advantage has the—if I understand, the question is, what advantage the packing-house received by having [443] these boards detachable.

Q. (By Mr. ACKER.) Yes; of the bins; the transverse partition pieces in the bins.

Q. (By the COURT.) The partition pieces in the bins. Why do you want to move them?

A. So as to get greater capacity so we can get more packers at it and get a greater volume of fruit.

Q. (By Mr. ACKER.) What was the advantage obtained in connection with the devices used by the defendants in the present suit in having the transverse positions of the bins and longitudinally adjustable.

A. Why, to give us capacity, so we can get packers and increase the volume—output per day.

Q. And did that differ in any manner from the provision for the adjustability of the bins in the device of the Upland sizer? A. No, sir.

Mr. LYON.—That is objected to as grossly leading.

The COURT.—I think that is leading, and I think you ought to avoid leading questions.

Mr. ACKER.—It is almost impossible at times to avoid leading in these mechanical questions, try as we may.

Q. What is the length of the sizing or grading ele-



(Testimony of N. J. Ofstad.)

ment of the devices represented by the said photograph exhibit in comparison with the length of the bins?

A. Well, I can't very well judge from the photograph, but [444] from my knowledge and observation, I have seen the machine in the packing-house in practical operation, and know that the grader element is considerably shorter than the bins; in some instances it may be more than others.

Q. Can you say whether or not the bins for receiving the sized fruit were projected beyond the grading element? A. Yes, sir; they were.

Q. Now, if they were projected, and were projected, as you stated, beyond the grading element, what guided or directed or conveyed the fruit from the grade outlets to the bin to receive that sized fruit? A. Why, chutes; by gravity.

Q. That is, the fruit rolled by gravity down those chutes? A. Yes, sir.

Q. How were those chutes, in what direction? Are they arranged relative to the surface of the bin?

A. Well, they were arranged—I have seen chutes in sort of a continuation of the grader proper downward, and I have seen them so they could be hinged and be portable, and then I have seen more than one so they could be—so gates could be used.

Q. I had reference, Mr. Ofstad, to the devices which you had testified to that you had used in the Arlington Heights device, how were those chutes arranged in the packing-house in which you said you operated or worked the sizer?

(Testimony of N. J. Ofstad.)

A. Well, they had the straight chute forward from where [445] the rope leaves—goes on the pulley or sheave, why, we had a spout or chute that laid right down into the bin; sometimes we put a board in there and it would drop on this board and roll into the bin.

Q. I will hand you two photographic prints and ask you to examine the same and state whether or not you can identify the machine represented thereby and I will state, if your Honor please, this is one of the devices set up by the pleadings.

Mr. LYON.—Are these supposed to be different ones?

Mr. ACKER.—No, they are the same, the same machine, different views of it.

A. What was the question, please?

(Last question read by the reporter.)

A. Yes; I can identify these machines; I have seen them in operation.

Mr. ACKER.—What was his answer?

(Last answer of the witness read by the reporter.)

Q. Where and when?

A. Why, we had a machine like this in Riverside Heights Number 10, and it operated while I was foreman there, commencing 1906-07, and they were used several years before—previous to my time as foreman.

Mr. LYON.—I move to strike out the last part of that answer on the ground that it is hearsay.

Q. (By the COURT.) Do you know of your own knowledge? [446] A. Yes, sir.

(Testimony of N. J. Ofstad.)

Q. (By Mr. LYON.) Were you there during those several years before you were foreman?

A. Yes; I was there two years before I was foreman.

Q. That would be 1904 and '5 then?

A. I was there—I was in the house there on a visit before I was employed there at all, and I saw the machines; I came there to seek employment.

The COURT.—Objection overruled.

Q. (By Mr. ACKER.) Please explain the construction and operation of the said machine that you have testified to as having seen in operation, as represented by the said photo exhibit prints.

A. Explain the operation of the machines?

Q. Yes.

A. Why, this machine here, as the rollers are moved—

Mr. ACKER.—Your Honor, I have an extra set of these.

The COURT.—Now, if you will have them marked so we will know what we are talking about. We will adjourn court until to-morrow morning. This case will be adjourned until 11 o'clock.

Whereupon, at the hour of 4:30 o'clock P. M., an adjournment was taken until Friday, July 14, 1916, at 11 o'clock A. M. [447]

*In the District Court of the United States, for the  
Southern District of California, Southern Divi-  
sion, Ninth Circuit.*

Hon. OSCAR A. TRIPPET, Judge Presiding.

A-44—EQUITY.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

A-45—EQUITY.

FRED STEBLER,

Plaintiff,

vs.

MID-CALIFORNIA CITRUS ASSOCIATION,

Defendant.

A-50—EQUITY.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Reporter's Transcript.**

Filed Aug. 8, 1916. Wm. M. Van Dyke, Clerk.  
By Chas. N. Williams, Deputy Clerk. [448]

Los Angeles, Cal., Friday, July 14, 1916,

11:30 o'clock A. M.

Mr. ACKER.—Your Honor, it was stipulated or  
agreed between counsel at the hour of adjournment

(Testimony of N. J. Ofstad.)

yesterday that this small photo that I have introduced in evidence as Defendants' Exhibit "O" might be removed from the custody of the clerk for the purpose of having enlarged photographic prints made of it, and that these prints might be introduced in evidence in lieu of the small one.

The COURT.—All right. Have you got a copy for me?

Mr. ACKER.—Yes, your Honor; that is why I had them made.

The COURT.—This is "O"?

Mr. ACKER.—Yes. I will ask that the larger print be substituted for the smaller one. This one was so small it did not clearly show.

N. J. OFSTAD, recalled.

Direct Examination Resumed.

(By Mr. ACKER.)

Q. Mr. Ofstad, at the hour of adjournment you were being questioned relative to the two photo prints which I now hand you, and you stated that you identified these photographs as being photographic prints of what machine, and where used?

A. (Examining photograph.)

The COURT.—Answer the question. These are photographs of what machine? [450]

A. Just read the question.

(Last question read by the reporter.)

A. Yes, sir.

Q. (By the COURT.) What machine, and where used, he wants to know.

(Testimony of N. J. Ofstad.)

A. Oh, it was used in the Riverside Heights No. 10.

Q. What is the machine called?

A. We called it the "Camel-back."

Q. The camel-back?      A. Yes.

Q. All three of these photographs are of the same machine. Two of these are the same?

A. Yes, sir.

The COURT.—What are these exhibits, Mr. Acker?

Mr. ACKER.—These are not marked. I will introduce them in evidence now in order that there may be no question about that. I will introduce them, and ask that they be marked as "P" and "P' " and that they both be used.

The COURT.—Which is "P' "?

Mr. ACKER.—I will ask the clerk. He has not marked them. I can't tell yet. This one is "P' ", if your Honor please. (Exhibiting photograph to the Court.)

The COURT.—All right.

Q. (By Mr. ACKER.) When was the apparatus used in the Riverside Heights No. 10 that you are testifying to?      A. Why, the year 1906. [451]

Q. With reference to the said photographic print, please explain how the fruit is sized as it passes through said apparatus, and how the sized fruit is conveyed from the discharge aperture for the sized fruit to the bins for the reception thereof.

A. Well, the fruit is sized on this machine, on a rope and roller arrangement, the rollers and rope



(Testimony of N. J. Ofstad.)

being parallel to each other, the rollers being adjustable. When the fruit is sized, it drops through the aperture and it goes by gravity into these chutes or flumes shown, and by gravity goes into the bins. Now, these flumes have a provision made by gate so you can deflect the fruit, so after coming through the aperture the fruit can be deflected through one flume or through another flume, according to will, or to one or more bins.

Q. Please mark on the said prints, the Defendants' Exhibits "P" and "P'," that which you have referred to as gates for changing the flow of fruit. Mark it by the reference letter—

A. Any particular mark?

Q. Well, you can put the reference letter "B."

A. Shall I mark all the gates—

Q. A sufficient number to identify them, Mr. Ofstad, on the two prints.

A. Shall I mark both photos or just one?

Q. Mark the same letter on the print Exhibit "P." Now, [452] Mr. Ofstad, I direct your attention to that portion of the print which my pencil rests on, and ask you to state what that is? What does that represent? (Indicating on the photograph.)

A. That represents the chute or the flume after the fruit is sized, and by which the fruit rolls down by gravity.

Q. Now, please explain for the benefit of the court whether the fruit after being sized and discharged to any given outlet for such sized fruit can be distributed between one or more of the bins for the re-

(Testimony of N. J. Ofstad.)

ceiving of the sized fruit.

A. Yes, sir; the fruit can be distributed after sized into one or more bins.

Q. How would you change the flow of the fruit from one bin into another bin?

A. Simply by changing the position of these gates.

Q. Of the gates which you have marked "B"?

A. Yes, sir.

Q. By the distributing system disclosed by said photographic prints, please explain whether or not the sized fruit may be delivered to bins located at a point beyond the sizing device.

A. Yes, sir; they can.

Q. Now, where does that appear in the said photographic prints, and explain to the court how that is accomplished, and in which the the prints does it appear? [453]

A. It appears in both photographs, one being a side view and one being a front view; in the sizer or grading element appear steps and the bins are projected beyond and to the bins from the sizer are these chutes or flumes by which the fruit rolls by gravity.

Q. Please mark on the said photo prints by the reference numeral C the bin or bins which are extended beyond the sizing member of the apparatus.

A. Mark it "C," did you say?

Q. Yes.

A. (Marking on the print.) This photo does not show all the bins. Exhibit "P" is the only exhibit—that shows partially of this bin, of one bin. The photograph does not take in the entire bin.



(Testimony of N. J. Ofstad.)

Q. Well, how about the bins at the feed end of the sizer; are they projected beyond the sizer or not, and if so, mark the same with a reference letter "C."

A. (Marks as directed.)

Q. Into how many sizes is the fruit divided which is passed through the sizing member of the said apparatus?     A. Into nine sizes.

Q. What becomes of the overflow fruit from the sizing apparatus?

A. The overflow is carried beyond the sizer member—

Q. (By the COURT.) That would make ten?

A. No; the overflow is not sized. [454]

Q. Wouldn't that be a size bigger than anything that goes through?

A. Well, the overflow have one or more sizes. They have to be hand-graded, or re-graded by machines afterwards, to get an accurate pack.

Q. (By Mr. ACKER.) And if I understand correctly from your testimony, that this overflow fruit is not what you term commercially sized fruit?

A. No, sir; it is not commercially sized.

Q. What do you do with this over sized, which is discharged from the machine?

A. Why, we have the packers, customarily, to hand-grade them. There are two, sometimes three sizes, and we either have to have the packers hand-grade them or hand-size them by eye, or else they will have to be taken out of the box or bins to which they run into from the grader and run over in another machine kept purposely for that.

(Testimony of N. J. Ofstad.)

Q. Is that true as to the machine used by the defendants in the present suit? A. Yes, sir.

Q. Is that true as to the machine installed by complainant, Fred Stebler, and which you have testified you used in the packing-house of the Porterville Citrus Association? A. Yes, sir.

Q. So that fruit which is termed in the trade the "overflow," which does not pass beneath the sizing members of the [455] fruit sizer must be re-handled or re-sized for the market? A. Yes, sir.

Q. In order that the record may be clear, I ask you to state again, Mr. Ofstad, where the machine represented by Exhibit "O" was placed into operation?

Q. (By the COURT.) Where is that located?

A. That is located at Uplands, or was.

Q. (By Mr. ACKER.) And in that machine I understood you to say that the partition pieces for the bins, the transverse pieces were adjustable.

Mr. LYON.—That is objected to as leading.

The COURT.—You went all over that once.

Mr. ACKER.—I wanted to be sure, your Honor, that was all.

Q. Mr. Ofstad, where are you employed at the present time?

A. I am employed for Mr. Parker at Riverside.

Q. For the Parker Machine Works?

A. Yes, sir.

Q. And for what length of time did you serve in the capacity as foreman of the Porterville Citrus Association Packing House?

A. From November 1st, 1915, to December, the

(Testimony of N. J. Ofstad.)

evening of December 24th, 1915.

Q. Did you sever your connection with the Porterville Citrus Association prior to the close of the season for the packing of fruit? [456]

A. No, sir.

Q. You were then, as I understand you, with the association throughout the entire season for the packing of the fruit? A. Yes, sir.

Q. And had charge of the defendants' machine. Mr. Ofstad, I direct your attention to a model exhibit which has been introduced in evidence on behalf of the defendant, and ask you to examine the structural device represented thereby, and state in your opinion as one conversant with the operation and construction of fruit sizing apparatus if the same would constitute a practical and operative machine for the sizing of fruit?

Mr. LYON.—That question in that form is objected to as grossly leading.

Mr. ACKER.—In view of the objection, I have no desire to make the questions leading.

The COURT.—Hasn't he already examined that machine and knows about it?

Mr. ACKER.—Has that witness examined it? I don't know about that.

The COURT.—We will not take up the time of the Court to let him examine it.

Q. (By Mr. ACKER.) Please examine the Defendants' Exhibit Model that has been introduced—

The COURT.—I say, we will not permit him to take up the time of the Court to examine it now. He

(Testimony of N. J. Ofstad.)

will have to examine [457] it out of court.

Q. (By Mr. ACKER.) Have you examined this machine, Mr. Ofstad? A. Yes, sir.

Q. Well, please state whether that constitutes a practical and operative machine for the sizing of fruit.

Mr. LYON.—Objected to as leading.

The COURT.—Objection overruled.

Mr. LYON.—Note an exception.

A. Yes, sir; I have examined that machine and with my knowledge and familiarity with sizers used in the industry to-day, that machine is practical and operative for the purpose of commercially packing oranges to-day.

Mr. ACKER.—Take the witness, Mr. Lyon.

Cross-examination.

(By Mr. LYON.)

Q. I believe you stated that you are still in the employ of the defendant, George D. Parker?

Mr. ACKER.—Excuse me. Mr. Parker is not a defendant in this action, Mr. Lyon.

Mr. LYON.—He is virtually the defendant, as the record shows, controlling the defense of the case and paying for it.

The COURT.—Well, answer the question.

A. Yes; I am in his employ.

Q. (By Mr. LYON.) How long have you been in Mr. Parker's [458] employ? How many years?

A. I commenced my employment with Mr. Parker June the 17th.

Q. When? A. This year.

(Testimony of N. J. Ofstad.)

Q. And when before that were you in his employ?

A. I was in the employ of Mr. Parker last year, last summer, during the period I was idle.

Q. In other words, you work more or less for Mr. Parker every year, don't you?

A. Only for the last two years.

Q. Only for the last two years? And you were put in charge of these new machines up in Porterville by Mr. Parker, weren't you?

A. State that again.

(Last question read by the reporter.)

A. No, sir.

Q. Didn't you assist in the manufacture of Defendants' Exhibit I', the model here? A. No, sir.

Q. Did you see it before you came into the courtroom? A. Yes, sir.

Q. Talked the matter over with Mr. Parker and with Mr. Brookhart?

A. I talked with—Mr. Parker showed the model to me in the Riverside shop—Mr. Parker's shop. [459]

Q. Now, how long have you been familiar with the grader industry of Orange County and Riverside County, California?

A. Just those two counties?

Q. Yes.

A. Why, I was familiar with the packing-house equipment in Riverside County as far back as 1904.

Q. And in Orange County?

A. In Orange County just—well, my practical experience was only two years ago.



(Testimony of N. J. Ofstad.)

Q. Do you know a man by the name of Head, of Orange County, who had a packing-house near Orange, or right in the town of Orange?     A. Head?

Q. Yes.     A. No, sir.

Q. Don't you know that Mr. Head tried out a machine like Defendants' Exhibit No. 1 and discarded it as unsatisfactory?     A. No, sir.

Q. Then you base your entire opinion on the question of whether such a machine constructed on the lines of Defendants' I' would be commercially successful or not, simply upon observation. You never have tried it out in actual service and know nothing of such a machine having been tried out in actual service; is that true?

A. I base my opinion that the machine is practical on my knowledge and observation and comparison with other machines. [460]

Q. You have never seen one like it on that principle tried out in the grading and sizing of oranges, have you?     A. The principle is the same—

Q. Answer the question.

A. I have not seen that particular machine in operation, no.

Q. Did you ever see a machine prior to the Stebler machines in which the carrier belt for distributing fruit ran longitudinally of the machine in relation to the set of bins at the side of the machine, and with deflectors arranged on such belt for carrying the fruit along the side of the machine and delivering them into given bins, such deflectors being

(Testimony of N. J. Ofstad.)

adjustable and the bin partitions being adjustable at will?     A. What is that?

Q. Read the whole question.

(Last question read by the reporter.)

A. I have not seen a machine prior to the time I saw Mr. Stebler's, where a belt was employed with adjustable deflectors, but I have seen them without the belt.

Q. Now, these so-called camel-back installations have all been replaced by the Stebler machine, have they?     A. I wouldn't say all of them.

Q. Well, tell me where one of them exists to-day that has not been replaced.

A. I think there is one at Highlands.     [461]

Q. Will you state positively that there is one of them in Highlands?     A. I saw it there last year.

Q. When was that packing-house last used?

A. From reports in my connection with the—

Q. Of your own knowledge, I mean.

A. Why, I am satisfied in my own mind it was used this last season.

Q. What other equipment have they in that house besides this one single grader and the camel-back distribution system equipment?

A. Other equipment?

Q. Yes, for grading.

Q. (By the COURT.) What is the name of that packing-house that has this camel-back at Redlands?

A. It is Highlands.

Q. Highlands.     A. Why—Oh—Mr.—

The COURT.—Can somebody suggest it to him?

(Testimony of N. J. Ofstad.)

Mr. LYON.—I don't know.

Mr. ACKER.—Mr. Parker suggests the name of Cleghorn.

A. Cleghorn.

Q. (By Mr. LYON.) Now, how many graders have they in that packing-house, or did they have the last time you were there? A. Only one. [462]

Q. Only this one that you speak of? A. Yes.

Q. And that was arranged like this photograph, Exhibit "O"? (Handing photograph to witness.)

A. I will say it was arranged more like this. (Indicating photograph in hand.)

Q. Well, do you know? Can you tell us which one it is? You seem to have a doubt. Now, which one is it more like, if it is like either of them?

A. Well, there is a similarity to the both of them.

Q. Then, it is not like either of them, exactly.

A. It is.

Q. You say it is exactly like the arrangement in Defendants' Exhibit "P"?

The COURT.—"P"?

Mr. LYON.—No, "P'." There are two of these photographs.

The COURT.—Well, "P" and "P'" are the same machine.

Mr. ACKER.—The same machine, your Honor, two photographs taken in different positions.

A. Yes; I would say it was more like that, although there is a similarity between both of them.

Q. Now, it is a fact that with the device of De-



(Testimony of N. J. Ofstad.)

fendants' Exhibit "O" the grades of fruit from the several successive discharge openings are conducted first one to one side of the machine and the other to the other side of the machine; [463] isn't that correct, in that construction?

A. Yes, sir; in this machine.

Q. Isn't that true, also, of these in the construction of Exhibit "P"? A. Yes, sir.

Q. Now, these machines at the Riverside Heights Orange Growers' Association, which had this camel-back arrangement, were displaced by Stebler machines, weren't they? A. Not while I was there.

Q. Well, when were you in there last, in that packing-house?

A. I was in the office, I judge, about a year and a half or two years ago.

Q. Well, the machines were not still in existence there then, were they? A. Which machines?

Q. These with the camel-back arrangement.

A. No, sir.

Q. And there were other machines there in their place? A. Yes, sir.

Q. And what machines were they?

A. Well, during my connection or service with the Riverside Heights No. 10, we installed Parker in that particular house, what we call the Fay house, in which the camel-backs were taken out.

Q. Those were the machines like this model involved in [464] the suit against George D. Parker referred to as suit No. 1652?

(Testimony of N. J. Ofstad.)

A. Yes; that type of machine took the place of the camel-back.

The COURT.—We will take a recess until two o'clock. [465]

AFTERNOON SESSION—2 o'clock P. M.

N. J. OFSTAD, recalled.

Cross-examination (Resumed).

(By Mr. LYON.)

Q. Mr. Ofstad, when did you last see these camel-back constructions in the Riverside Heights Orange Growers Association packing-house at Riverside?

A. It was 1909, I think it was.

Q. Do you know what became of that packing-house?

A. What became of the packing-house?

Q. Yes, that they were in.

A. The Riverside Heights Number 10?

Q. Yes.

A. Well, the building still stands on the same ground.

Q. Is it the same building?

A. The same building.

Q. As a matter of fact, the building in which those camel-back constructions were used by the Riverside Heights Number 10 at Riverside burned, didn't it, and the machines burned?

A. That was before my time.

Q. And in the new house they put in Stebler graders, didn't they?

(Testimony of N. J. Ofstad.)

A. Put a Stebler grader in the new house, yes.  
[466]

Q. And the one that was rebuilt took the place of the house that burned?

A. You must remember, Mr. Lyon, that the Riverside Heights Packing House consisted of two buildings, the north and south building, or the old building which was called the Fay building, and it was the Fay building that remains on the ground to-day, and in which the camel-back machines was in operation where I saw them.

Q. Aren't you mistaken in that, and that the camel-back constructions were in the north building which burned?

A. I am talking about the machines in the Fay building.

Q. Well, are you positive there ever was any of these camel-backs in that Fay building?

A. Yes.

Q. Now, referring to this Cleghorn packing-house at Redlands—or Highlands, as I should say, you are familiar with the so-called Rayburn overhead system, aren't you?

Mr. ACKER.—Is that the patent that has been introduced in evidence, Mr. Lyon?

Mr. LYON.—I don't know whether you have introduced it or not.

Mr. ACKER.—I introduced a Rayburn patent—so we will know clearly what you are speaking about.

Mr. LYON.—I think the witness can answer the question.

(Testimony of N. J. Ofstad.)

Q. (By the COURT.) Can you answer the question?

A. Why, not definitely, your Honor, until I—I have [467] seen so many machines that I don't know by what name they go by, all of them.

Q. Do you know of any overhead system?

A. To-day?

Q. Well, at any time.

A. I have seen machines; yes; I have seen machines in the past, years ago, called the overhead system; I didn't know the official title.

Q. (By Mr. LYON.) As a matter of fact, Mr. Ofstad, you have been traveling throughout the citrus packing-houses of Southern California for Mr. Parker, haven't you? A. Yes, sir.

Q. And soliciting business for him?

A. Yes, sir.

Q. For some considerable time?

A. Well, this year I haven't.

Q. Well, in years gone by.

A. Last year, or off and on.

Q. And you lived at Orange, California, for some time, didn't you? A. Yes, sir.

Q. And were engaged in the citrus industry there?

A. Yes, sir.

Q. I show you Defendants' Exhibit "J," Rayburn patent number 741,928, and ask you if this Cleghorn installation at Highlands was not the installation illustrated in this [468] exhibit (handing copy of patent to witness).

A. To the best of my knowledge I don't think this

(Testimony of N. J. Ofstad.)

particular construction is; I think it is more similar to the photograph.

Q. Wasn't the grader element arranged high up in the packing-house and the bins down at a very much lower level? A. Well, the camel-back is—

Q. Answer the question.

A. Well, the camel-back, and that type are both high from the ground.

Q. How much higher from the level of the packing-house floor was the packing-house construction?

A. In comparison to what?

Q. The level of the floor.

A. I never took the dimension of the height.

Q. Now, you say you have seen this type of Rayburn overhead system in packing-houses, haven't you? A. I think I have.

Q. And it is necessary for a man to climb up a ladder, or a flight of steps to get up to the grader, isn't it, with such systems?

A. I don't think I ever saw a ladder or steps.

Q. In such overhead system the grader is arranged a good deal over the height of a man—over 6 feet from the floor, isn't it?

A. I can't say how high. [469]

Q. Now, isn't that the construction with the grader above the floor—the packing-floor, at least 6 or 8 or 10 feet, and the distributing chutes arranged to carry the fruit by gravity down to bins on the packing-floor? What is in that Cleghorn Packing-house at Highlands?

A. Well, I can't say—explain the details of it, be-



(Testimony of N. J. Ofstad.)

cause I didn't examine close enough for that. I simply was in the house and tried to sell Mr. Cleghorn some equipment, and while there I saw the machines.

Q. In that Cleghorn installation, don't the packers work under the grader? A. Under the grader?

Q. Yes; so that the grader is arranged up high enough so the packers work right under it.

A. The packers were on both sides of it.

Q. And under it in relation to the level of the grader? A. I can't say that positively.

Q. You don't know, do you?

A. Not that particular thing, no.

Q. It is a fact, isn't it, that economy of packing-floor space is very much sought in packing-houses?

A. In—

Q. Read the question.

(Last question read by the reporter.)

A. Yes.

Q. And with this camel-back installation the grader and [470] the chutes and the bins require a great deal of floor space?

A. You could make the machines go back—

Q. Answer the question as to the camel-back construction you have referred to.

A. I don't know as they require any more square feet than they do nowadays.

Q. Are you prepared to say that they do not require more space for the same length of bins and same bin space than the Porterville machines of the defendants herein require?

(Testimony of N. J. Ofstad.)

A. To my knowledge and experience it is often with each house the largest machine they can get in.

Q. Answer the question in regard to the relative bin space and the amount of space required for the distributing system and the bins. Isn't that less in the Porterville installations than if graders were placed therein to carry the same amount of fruit per day and put it in bins?

A. Well, my impression is that the camel-back is wider but a shorter grader than they are to-day, and—

Q. Well, you are unable to answer my question?

Mr. ACKER.—Let the witness finish his answer?

A (Continuing.) —and the camel-back grader is a machine including the bins wider than the Porterville grader, but shorter, but I think that the square feet occupied approximately the same.

Q. That is your best judgment?

A. Yes. [471]

Q. Now, what is the advantage of having the bins arranged as they are in the Porterville installation over the old camel-back arrangement?

A. Well, the advantage in the Porterville arrangement was—had this advantage, because we wanted capacity in that house, and there were posts there limiting the equipment for wide graders, and consequently the Parker type and grader machine was narrower, and we could get the equipment in the required space.

Q. Each one of those Parker graders is a double or two-ranway grader, isn't it?

(Testimony of N. J. Ofstad.)

Q. (By the COURT.) The fruit comes out on both sides, don't it?

A. Yes, sir.

Q. (By Mr. LYON.) And each separate grade, or separation on each side, is discharged at its own respective siding? A. Yes, sir.

Q. Now, with the old camel-back arrangement you stated that alternate grades were discharged on alternate sides.

A. I stated according to this photograph it was, but not in all instances, but the one we had in the Riverside Heights house number 10 discharged all sizes on one side.

Q. In what machine?

A. In the camel-back?

Q. Of what installation?

A. The camel-back machine I am talking about in the Fay [472] house.

Q. Those were double graders, then, or had a grading roller and a grading belt on each side, and each one had its own camel-back arrangement so that each operated independently of the other?

A. Well, when the fruit was sized, went through the aperture, all sizes in the successive sizes from the 324 on up to the larger sizes, they dropped down onto the respective sides, and into the bins on the same sides as they were sized.

Q. Now then, were those single machines or double machines?

A. There was one complete machine, a whole machine, and a half machine.



(Testimony of N. J. Ofstad.)

Q. And they were separate installations?

A. Yes.

Q. Now, you couldn't arrange with the camel-back grader a double grader in the manner of the Porterville machines? A. Yes, sir.

Q. Where was it so arranged?

A. Riverside Heights Number 10.

Q. You have been talking about the Parker graders that are in there now in your last answers?

A. No, sir; I am talking about the camel-back.

Q. When were they so arranged as you have last testified in the Riverside?

A. When they were so arranged? Up to the years 1909, [473] when they were torn down and replaced by the Parker type.

Q. Now, which one of the two houses of the Riverside Heights was so arranged?

A. Known as the old Fay house.

Q. Not in the north house?

A. I am talking about the machine in the Fay house, the house facing Seventh street in Riverside.

Q. Not in the north house which burned?

A. We had Stebler's graders in there.

Q. And the north is the one that burned?

A. That is before my employment in that house; I don't know anything about that.

Q. Then, you don't consider that the traveling belt system of distributing apparatus with the deflectors thereon, and the adjustable bin partitions in relation to the adjustable deflectors makes for economy of floor space or has any advantage over

(Testimony of N. J. Ofstad.)

the old camel-back, do you?

A. I think they are an improvement?

Q. In what respect?

A. I think they are an improvement in so far as—well, with packing-house people, we are after bin capacity so as to enable us to increase the volume of output.

Q. Then you get a greater output with the distributing apparatus, including the longitudinally traveling conveyor belt, the deflecting arms with their adjustment, and the adjustable bin partitions in relation to them, do you, *then* [474] you did with the old camel-back arrangement?

A. I consider it an advantage to the belt with their deflecting arms which you speak of.

Q. An improvement over the camel-back in this respect, it gives the fruit more protection?

A. There is less gravity for the fruit to roll, and that is what we want to avoid. The more an orange has to roll the greater the increased per cent for decays required. Now then, the belt is superior over the camel-back in this respect, that it gives the fruit better protection. The camel-back we had had long chutes or flumes, and the orange had to travel down this incline by gravity several feet, whereas on a distributing belt as Mr. Stebler's machine has, it comes to a standstill rather short—short incline, and then is taken by belt into the bins. Now, there is the advantage of the belt, as far as capacity, why, the length of the machine governs the capacity or the output.

(Testimony of N. J. Ofstad.)

Q. And with the traveling belt system of distributing apparatus in connection with the adjustable bin partitions and the adjustable deflectors on the traveling belt of the distributing apparatus, you can get a greater capacity within a given space, can't you?

A. The bin adjustments in the Stebler type of machine that can slide along in the bins have more elasticity, or greater—so you can get one bin larger than others, I think, is an improvement over the bin type of the camel-back, [475] because some of the bins in the camel-back were stationary.

Q. Now, you would not think today, as a practical packing-house man, by putting in one of the old camel-back systems, would you?      A. No.

Mr. LYON.—That is all.

Redirect Examination.

(By Mr. ACKER.)

Q. You thought as a practical packer of fruit you wouldn't consider the advisability at this time of putting in the camel-back machine. Please explain a little more fully your reasons for that answer.

A. Read the question.

Q. (By the COURT.) Why wouldn't you use the camel-back any more?

A. Because I think both the later type of machines are superior and better and easier on the fruit, both Mr. Stebler's new type of machine, and also Mr. Parker's new type of machine are more successful in the operation and in the handling and protection of the fruit, and gives more capacity; especially so I have found it in Mr. Parker's machine, and

(Testimony of N. J. Ofstad.)

that is why I wouldn't go back to an antiquated machine when I could get a modern machine that gives me better and more efficient service.

The COURT.—Is that all?

Mr. ACKER.—That is all. [476]

**Testimony of Thomas Strain, Sr., for Defendants.**

THOMAS STRAIN, Sr., a witness called in behalf of the defendants, being first duly sworn, testified as follows:

Direct Examination.

(By Mr. ACKER.)

Q. Please state your name, age, residence and occupation?

A. Thomas Strain; nearly 68; residence, Fullerton; fruit grower.

Q. How long have you been engaged in the packing-house business?

A. I am not in the business now at all.

Q. Well, were you at any time engaged in said business?

A. Yes, I was in it about ten years.

Q. Beginning with what year?

A. I don't know exactly, but I was eight years out of the business—ten years—for eight or ten years previous. I don't remember the exact amount of time, but it is some eight or ten years.

Q. I direct your attention, Mr. Strain, to letters patent number 775,015, Plaintiff's Exhibit Number 3, granted to T. Strain, November 15, 1904, and ask you whether you are the said Thomas Strain to whom the said letters patent were issued?

(Testimony of Thomas Strain, Sr.)

A. Yes, sir; it is mine.

Q. Please state whether or not a machine was ever constructed and placed in operation embodying the features [477] of the said Strain invention.

A. I don't know; never constructed one; I don't know.

Q. Did you construct and place into operation a machine prior to applying for letters patent—prior to filing an application for letters patent which eventuated in the granting of said letters patent?

A. Yes.

Mr. LYON.—I object to that.

The COURT.—He has already answered the question, Yes.

Q. (By Mr. ACKER.) Please state what means, if any, were employed in the said machine for varying the grade outlets for the sized fruit?

A. After it is sized, you mean? After fruit is sized?

Q. No; for varying the grade outlets for the fruit to be sized running through the machine.

A. I don't understand.

Q. (By the COURT.) How did the sizing of the oranges come out, the smaller and the larger ones?

A. It was a belt, or at least a shaft that could be twisted up or down. The grade was regulated by the shaft, by a three-quarters of an inch; that is what I used first.

Q. (By Mr. ACKER.) You say that is what you used first. Did you use any other device or means for varying the outlet aperture?



(Testimony of Thomas Strain, Sr.)

A. No; that is the only machine there of that kind; [478] that was the only adjustment I had, was the flexible shaft.

Q. Who assisted you in the construction of the said machine?

A. Well, my son, and a man named Smith, a handy man I had, he helped to make it.

Q. Can you state approximately when that apparatus was constructed and whether the same is in operation at the present time?

A. I don't remember the date of construction but it was the same year the patent got out, and I dismantled it after that first six months, or first season; we only run one season and then dismantled it.

Q. I notice in letters patent granted to you reference to what is specified in the patent as hinged leaves for raising and lowering the conveyor belt. Please state whether or not in the said apparatus as constructed and operated by you, said hinged leaves for raising and lowering the traveling belt were employed.

Mr. LYON.—That is objected to as leading.

The COURT.—I think it is leading.

(By Mr. ACKER.) Mr. Strain, please state whether or not any means were employed in the said machine for adjusting the longitudinally movable carrier belt for the fruit.

A. There is a pulley at each end that carried the longitudinal belt.

Q. (By the COURT.) Well, could you raise that belt and let it down? [479]

(Testimony of Thomas Strain, Sr.)

A. No, that was movable; it was on a flexible shaft body; there was a flat table the whole way, some two or three inches wide, and the flexible shaft, with the levers.

Q. (By Mr. ACKER.) Approximately what was the length of that machine?

A. About 38 or 40 feet; we called it a 40-foot grader.

Q. And what is the length of the bins for receiving the fruit in comparison with the length of the apparatus?

A. Same length practically.

Q. Please state how the discharge of the fruit, the sized fruit, relative to the fruit-receiving bins was controlled.

A. The fruit fell on the flexible grader which was adjusted for the sizing of the fruit, the flexible shafting for adjusting the sizing of the fruit, and when the fruit rolled through that, the belt was continued down about 10 inches lower and the fruit would be rolled into the bin, but there was a projection to stop the fruit in that direction, and the fruit was carried around that until we wanted to switch it off, and there were little switches on each side to throw the fruit into any bin we wanted.

Q. Were those switches stationary?

A. No; they were not stationary.

Q. What was the purpose of those switches?

A. To fill the bin to any length. The first part of the bin would fill up, and then the switch would throw them over, and you could switch the fruit

(Testimony of Thomas Strain, Sr.)

anywhere you wanted to make [480] it—mix the fruit.

Q. That is, to get an even distribution into the bin?

A. When the bin would fill up at one end, you could switch it off and get to the other part of the bin.

Q. Those switches, I understood you to state, were movable? A. Yes; movable.

Q. And in what direction were they movable relative to the travel of the belt?

A. The same way as the belt, longitudinally.

Q. And they were longitudinally adjustable?

A. Yes.

Q. And if I varied the position of those devices and adjust them longitudinally, what effect would it have relative to the discharge of the fruit into the bins?

A. Discharge it at different points.

Q. It varies the point of discharge? A. Yes.

Q. What was the width of the belt employed in your machine?

A. About 22 inches over both sides.

Q. Did you ever build more than one machine?

A. No; only one machine.

Mr. ACKER.—You may take the witness.

Cross-examination.

(By Mr. LYON.)

Q. Why did you discontinue the use of that machine, Mr. Strain? [481]

A. Well, Mr. Stebler said that infringed an old patent, an Ish patent, and I didn't wish any litigation out of that; I got out a better machine and dis-

(Testimony of Thomas Strain, Sr.)

mantled this one that was used the season only.

Q. In other words, it is now your present recollection because you got up a better machine you dismantled this one?

A. Yes; there is two reasons; Mr. Stebler objected and then I got the better one out.

Q. Now, isn't it a fact that you got the other one, the one you now say was a better one, was because you had to discontinue the use of those machines that you have been referring to?

A. No; I ran the whole season after Mr. Stebler told me, run the whole season through.

Q. That was not the reason for getting up the new machines?      A. Partially.

Q. Now, you say you ran that machine but one season?

A. As far as I know it was one season; it is a good while ago, but I was almost sure it was one season.

Q. Now, was that the season of 1903?

A. I couldn't give you the date; it was the season of the patent, but I don't know the time now.

Q. When you say the date of the patent, do you mean the date of the application of the patent?

A. The application, yes.

Q. Now, this application for patent was filed January 12, [482] 1903?

A. That is the same year that I run the machine, as near as I can remember.

Q. Now, didn't you run that machine the season of 1904?

A. I don't know; I don't think so; if I did, I don't

(Testimony of Thomas Strain, Sr.)

remember exactly, but I think I only run it one season.

A. Well, if it had been run the season of 1904, you would know it, wouldn't you?

A. How would I? I wouldn't know it.

Q. I mean you would have been aware of it if it had been?

A. Certainly; I was in the house all the time; I was running the business.

Q. Now, you with this machine that you say you substituted for the machine of this patent, Plaintiff's Exhibit 3, you had an inference proceeding in the United States Patent Office as to whether you were the inventor of it, or your nephew, Robert Strain?

A. Yes, sir.

Q. And it was determined that Robert Strain was the inventor? A. Yes, sir.

Q. In that interference you testified as a witness, did you? A. Yes, sir.

Q. You appeared as a witness on Thursday, June 28, 1906, before Lizzie D. Brett, a notary public, at the office [483] of Hazard & Hartman, rooms 638 to 641, Citizens National Bank Building, in that proceeding, and were asked the following questions: (Reading:) "Referring to the substitute machine that you say was a better machine, what was the occasion of your trying to get up a different machine from the grading machine that you had in use in March, 1905?"

A. Sometime in 1904, I think it was, the California Iron Works sent a letter to me stating that



(Testimony of Thomas Strain, Sr.)

my machine was an infringement of the Ish patent, and again in the spring of 1905. Since giving my previous testimony, my attention has been called to the letter which was dated March 2, 1905, from the California Iron Works again calling my attention to this machine, and again declaring it an interference with the Ish patent. [484] From the time of the first information in 1904, I kept my attention on the thought of improving my machine in such a way that there would not be any possibility of an infringement of any of the many graders then in use, and was naturally driven to the idea of a double edge grader, and had often talked over this matter with my son, and believed that possible, but little difficulties as to adjustments or other things prevented me from taking any action, as well as the fact that no attempt was made by the California Iron Works to action. However, owing to the condition of things represented by the letter of March 2d, 1905, I decided I must now put my ideas in practical shape and get ready for any emergency." You were asked that question and gave that testimony at that time?

A. Quite likely.

Q. I am reading from the original transcript of the testimony given in that interference.

Mr. ACKER.—From the original certified copy?

Mr. LYON.—No; from the duplicate made at the time.

Q. Now, Mr. Strain, you employed Townsend Brothers of Los Angeles, to prepare the application

(Testimony of Thomas Strain, Sr.)

for this patent, Plaintiff's Exhibit 3 for you, did you? A. Townsend Brothers?

Q. Yes.

A. Yes, I think that is one of the first.

Q. And Mr. Hackley—George T. Hackley, who was then [485] associated with the firm, made several trips out to Fullerton in connection with the preparation of that application, didn't he?

A. Somebody did.

Q. And so did Mr. Edmond A. Strause, the draftsman?

A. I don't know; someone came from the office; I don't know.

Q. And these drawings for this application for patent were prepared from the machine as you were then just about completing it; isn't that true?

A. Partly; there were lots of amendments put in afterwards.

Q. How do you mean amendments put in afterwards?

A. I mean that that is the first conception of the thing, and the patent was built on that.

Q. And you mean that there were other amendments put into the machine after the application was filed?

A. I mean there were things put in the patent that were not on the machine at all.

Q. What?

A. Several. I don't know them all.

Q. Show us any part of that that was not in the machine.

(Testimony of Thomas Strain, Sr.)

A. I will show you that hinged elevation from below the belt for adjusting was never put on the machine, but I thought someone might come down quick and practically [486] make the same machine with the use of one of my plans.

Q. You had a conversation with Mr. Stebler in regard to this machine while you were using it, didn't you? A. Yes; he was out to see it once.

Q. And you explained to him how you could use these hinged leaves under that belt for the purpose of raising it to get the grade?

A. The same as the patent says I could use it, but I didn't; I could do it.

Q. Are you prepared to positively state that you did not make a single one of the portions of that bed plate movable?

A. Never made any; it is not necessary; it is graded from above. If it is graded from below, it would be a double invention. If I had that adjustment above, I would not need it below, I am quite certain.

Q. You sold this patent to Mr. Stebler for a thousand dollars cash, I believe? A. This one here?

Q. Yes.

A. Excuse me, I didn't sell it to Mr. Stebler. I didn't sell it to Mr. Stebler. I understood it went to him, but nobody told me such a thing. I sold it indirectly.

Q. You had your dealings directly with a lawyer by the name of Marx in Fullerton? [487]

A. Certainly.

(Testimony of Thomas Strain, Sr.)

Q. And you understood he was dealing for Mr. Stebler?

A. There was nothing ever said, but I understood he wanted it.

Q. How long did you say this machine was?

A. About 40 feet. I couldn't say exactly; it was within a couple of feet of that.

Q. And how many grades of fruit did you take off of that machine, or sizes?

A. It was either nine or ten; I am not exactly sure which.

Mr. LYON.—That is all.

Redirect Examination.

((By Mr. Acker.)

Q. You say you took off of that machine nine or ten sizes of fruit. Please explain what became of the fruit that was commonly termed the overflow of the machine.

A. Well, that went into the last bin. There was different sizes that went to certain bins, and everything from those sizes up went into that bin and had to be reset or re-graded over again; it was all packed by hand; there was two or three sizes.

Q. That is, there would be two or three sizes of fruit in this overflow bin?

A. There was only one bin for that. [488]

Mr. ACKER.—This you may object to, if you want to, because it is not redirect, and I will recall him to the stand if necessary. It is a photograph of that machine, which shows it to better advantage.

Q. Mr. Strain, I will hand you a photograph, and

(Testimony of Thomas Strain, Sr.)

ask you to examine the same and state whether you can identify that photograph, and if so, what is disclosed thereby?

A. This is my machine; I remember the photograph.

Q. That is a photograph of the machine that you testify to having made and placed in operation?

A. That is the machine.

Mr. ACKER.—I will offer the photograph in evidence and ask that the same be marked Defendant's Exhibit "F." That is all, Mr. Lyon.

Recross-examination.

(By Mr. LYON.)

Q. Mr. Strain, I don't believe it will appear in that photograph, but referring to the Plaintiff's Exhibit 3, your patent, I will ask you if it is not a fact that below this rod that ran along—the grading rod, the parts 36 were arranged so that the fruit could only come out where the upper ends or edges of these parts 36 did not exist? In other words, that portion did not prevent the oranges from rolling between the grading rod and the belt?

A. I don't catch your question. [489]

Q. (Handing copy of patent to the witness and indicating thereon.) That was simply to prevent the fruit from dropping over the side of the belt?

A. Well, the fruit came out of that part—well, I mean it came out in an open space.

Q. And it couldn't come out on this upper horizontal section of the part 36 which was near the grading rod?



(Testimony of Thomas Strain, Sr.)

A. No; it couldn't come out there; it had to drop into the next place, and then on out.

Mr. LYON.—That is all.

Mr. ACKER.—Mr. Lyon, will you admit the existence and the use of these machines which have been referred to as the camel-back, and as represented by the photographic exhibits, which have been introduced in evidence? If so, I will not take any testimony on that point.

Mr. LYON.—I don't admit the existence of these particular machines, no. I stated as far as the construction illustrated in photograph, Defendants' Exhibit "O," is concerned, why, we have to admit that. I will not admit, however, that the man Ofstad is correct as to where the machines were in the Riverside Heights Orange Growers Association, or that he is correct at all in regard to the Highlands machine, or that he has any recollection really as to the construction of the camel-back. [490]

**Testimony of J. L. Sifford, for Defendants.**

J. L. SIFFORD, a witness called in behalf of the defendants, being first duly sworn, testified as follows:

Direct Examination.

(By Mr. ACKER.)

Q. Please state your name, age, residence and occupation.

A. Age, 47; Riverside, California; packing-house equipment.

Q. You will have to talk a little louder. I can't

(Testimony of J. L. Sifford.)

hear you, myself. Will you read that answer?

(Last answer read by the reporter.)

Q. By whom are you employed at the present time? A. Sir.

Q. With whom are you employed at the present time A. The Parker Machine Works.

Q. How long have you been in the employment of Mr. Parker or the Parker Machine Works?

A. Seven years.

Q. How long have you been identified with the citrus industry of this state? A. Thirteen years.

Q. I direct your attention, Mr. Sifford, to two photo prints which have been offered in evidence as Defendants' Exhibits "P" and "P'," and ask you whether you can identify [491] the same, and if so, what the machine illustrated thereby related to? (Handing photographs to the witness.)

A. I recognize the exhibit "P" as a sizer and bins that I have seen in operation in Arlington Heights.

Q. When? During what year?

A. In the year 1904.

Q. What was that machine commonly termed in the market?

A. It was commonly termed the camel-back system.

Q. Please explain how the operation of that machine, so far as it relates to the sizing of the fruit, and as relates to the distribution of the sized fruit.

A. This system or sizer was—the sizing properties, where one was a fixed part and the other one

(Testimony of J. L. Sifford.)

was adjustable. The fruit after passing through the sizing openings went into chutes which were constructed at different angles obliquely to the sizer, carrying the fruit to different parts of the bin, both extending beyond the receiving end, and also the delivery end of the sizer proper, the chutes being so constructed that this fruit could be changed or shifted from one chute to another, and thus distributing the fruit from one sizing point to another or putting two—this fruit into two different chutes, being able to distribute the fruit in the different bins.

Q. Did you see the machine in operation?

A. I have.

Mr. ACKER.—You may take the witness, Mr. Lyon. [492]

Cross-examination.

(By Mr. LYON.)

Q. Where was this that you said, Mr. Sifford, that you saw this camel-back in operation?

A. In Arlington Heights.

Q. Arlington Heights? A. Yes, sir.

Q. Is that any different from the machine in the Riverside Heights No. 10 Association?

A. Yes, sir.

Q. How much different?

A. Different in respect to the distribution of the delivery of the fruit from the sizer.

Q. And both of those installations were gravity systems?

A. Gravity to the bin, through gravity chutes.

Q. Now, you testified as a witness on behalf of the

(Testimony of J. L. Sifford.)

defendant, Pioneer Fruit Company, in the Circuit Court of the United States for the Southern District of California, Northern Division, in the case brought by Fred Stebler against that company, suit No. 207, on June 29th, 1911, in regard to this camel-back installation and system, didn't you?

A. I was on the stand, but I can't say as to that.

Q. Didn't your testimony deal with the camel-back distributing system in that case?

A. As I say, I am not prepared to state. I don't remember. [493]

Q. When did you see the camel-back system in the Riverside Heights, No. 10? A. 1905.

Q. And when was it that you saw this in the Arlington? A. 1904.

Q. That was the first time that you had seen a camel-back then in the Arlington A. No, sir.

Q. When had you seen it before then?

A. I had seen several before in different houses over the state.

Q. Name them.

A. There was one—one at the Glendora house, the Glendora Citrus Association; there was one at Azusa Citrus Association, and there is others—I am not prepared to state any others.

Q. Now, when was the first time that you saw the camel-back installation in the Riverside Heights No. 10 at Riverside?

A. That was in the year it burned in 1904, I think.

Q. When was it, before or after you saw this Arlington Heights installation

(Testimony of J. L. Sifford.)

A. That was after I saw the Arlington Heights.

Q. And you saw the Arlington Heights installation in 1904 for the first time? A. 1904. [494]

Q. Now, in this case 207 to which I have referred, you testified that you saw this machine in the Riverside Heights 'Orange Growers Association No. 10 Packing House in 1903, and identified Defendants' Exhibit No. 26 as a photograph of that installation, didn't you? And I show the original transcript of your testimony in that case.

A. I might possibly; it could have been December—

Q. You testified here (reading): "Did you see the machine in 1903? A. Yes. Q. Of which this is a photograph? A. Yes, sir. Q. Where was it? A. It was in the Heights No. 10, Riverside, California." And the photograph referred to is offered in evidence as Defendants' Exhibit No. 26. "Q. And you state that it represents the sizer in the camel-back system that was in operation in Heights No. 10 in 1903; and the diverting boards, the camel-back is on what we call a gravity or incline with the diverting boards or fruit guides set across the bins over the incline of the member to carry the fruit to the different bins and to make a larger or smaller bin. A. That is correct." Look at the transcript and see. A. It carries yes, sir.

Q. Well, that is the testimony you gave at that time? A. To the different bins.

Q. Well, that is the testimony you gave at that time? A. Yes, sir.



(Testimony of J. L. Sifford.)

Q. Now, you have been employed by the defendant, George [495] D. Parker, for how long?

The COURT.—He said seven years.

A. Seven years.

Q. (By Mr. LYON.) And during that time you have been over practically all of the citrus industry and packing-houses of California, haven't you, for him? A. Well, a good deal of it.

Q. And you have also been in the state of Florida for him, haven't you? A. Yes, sir.

Q. And how long is it since you know of one of these camel-back systems having been installed in any of that territory? A. Of it being installed?

Q. Yes.

A. I don't know of any re-installations for several years, but I know of several that have been changed in different parts of the house.

Q. You don't know of a camel-back installation having been put in since you have been with Mr. Parker; is that true?

A. I am not prepared to say at the present time.

Q. Well, you have not seen a camel-back installation since Mr. Stebler brought out the distributing system, have you, with the conveyor belt?

A. As I said, I am not prepared to say, Mr. Lyon. [496]

Q. You don't remember one where you can tell us where it was? A. Not at the present time.

Q. And practically all of them have been removed, haven't they, and discontinued?

(Testimony of J. L. Sifford.)

A. Well, since I came back from the south I have not been over the district enough to see.

Q. Well, practically all removed before you went to the south, or to Florida, hadn't then?

A. There were several in operation when I went to Florida.

Q. Now, you were with the H. K. Miller Manufacturing Company when it was putting in the so-called Rayburn overhead system? A. I was.

Q. You know what that system is? A. I do.

Q. And you know with that system the grader is up above the head of the operators—the operators, or packers, as I should say, and the packing bins are down on the floor below the grader?

A. Yes, sir.

Q. Have you ever been in this Cleghorn packing-house at Highlands?

A. It has been several years since I have been in the Cleghorn house in Highlands. [497]

Q. Isn't that one of the Miller Company's installations of the Rayburn overhead system?

A. I am not prepared to say.

Q. Didn't you assist in the installation of that for the H. K. Miller Manufacturing Company?

A. No, I did not.

Mr. LYON.—That is all.

Mr. ACKER.—If your Honor please, I have a deposition of witnesses taken at Hanford, California, which I wish to read to your Honor.

Mr. LYON.—It is understood, of course, that this particular evidence is addressed solely to the dis-

(Testimony of J. L. Sifford.)

tributing apparatus patent, Plaintiff's Exhibit No. 3, and is not admissible under the pleadings as to any of the rest of it.

The COURT.—You are referring to the deposition?

Mr. ACKER.—This is the deposition, your Honor, the first deposition is that of the witness H. A. Beikhaus, duly set up in the pleadings.

(Mr. Acker thereupon read the depositions of H. A. Biekhaus and A. Nieson.)

The COURT.—Mr. Acker, I wish you would come and explain this photograph a little bit to me.

(Informal discussion at the bench.)

Mr. ACKER.—The defendants rest.

The COURT.—That is the defendants' testimony? Well, I want to ask this witness some questions as to the construction [498] of this machine, if it is agreeable.

Mr. ACKER.—Which witness, your Honor?

The COURT.—The man that went up there for Mr. Parker and constructed the machine.

**Testimony of Charles F. Brookhart, for Defendants  
(Recalled.)**

CHARLES F. BROOKHART, recalled.

Q. (By the COURT.) Now, you testified that these rollers on the Parker machine were in alignment?

A. Yes, sir; that is the way they were intended to be constructed, in alignment.

Q. Are these rollers the same size?

A. You mean the length of each roller?

(Testimony of Charles F. Brookhart.)

Q. No; they are all alike. Are they made on the same pattern?

A. As near as they can be turned.

Q. Made and turned in the same lathe?

A. Yes; each roll is made by the same man in the same lathe, and using a caliper for each size.

Q. Then, the center of the roll, each one of these rollers is the same distance—the same circumference in each of them?

A. Yes, sir; as near as they can get them to that size.

Q. Then the center of these rollers from one end of the machine to the other would form a straight line?

A. Yes, sir; that is the idea.

Q. Now, let us call that straight line "A-B," A being at [499] the head where the fruit goes in and B at the foot? A. Yes, sir. [500]

Q. The distance at A is farther away from the belt than B?

A. That is where the fruit runs onto A?

Q. Yes.

A. That is approximately an inch and a half nearer to the belt than the end where the fruit was taken off, the rollers gradually diverging with the belt member.

Q. This roller A-B gets farther away from the belt as the farther you get away from the end?

A. Yes, sir; the receiving end.

Q. B is farther away from the belt than A?

A. Yes, sir.

Q. The belt is on a straight line? A. Yes, sir.

(Testimony of Charles F. Brookhart.)

Q. Inclined downward?      A. Yes, sir.

Q. Now, all these rollers are hung on a bracket?

A. Yes, sir.

Q. These brackets are all fastened to the same frame?

A. Well, yes, as a general—well, you mean as a whole thing. Of course, there is a casting that sets on each rafter, and these brackets are fastened onto those castings; it is on the frame of the machine, the same frame on the machine.

Q. Now, is this frame on which these brackets are fastened, is that on the level, or is that inclined in any way?

A. Well, it is made in the shape (indicating) like that. [501] The cast frame is made to conform to the angle of the table.

Q. Running parallel with A-B?

A. Longitudinally; it is supposed to be level, if a man would draw a line.

Q. Now, you get this adjustment by making the end at B farther away from the belt by sliding these brackets, do you?

A. Yes, sir; that is the only way we can get the distance greater at the one end is by raising these upper lines as we go down the machine.

Q. Now, couldn't you fasten these brackets to the frame at the appropriate distance along from A to B, so as to get that alignment, if the brackets were all the same size?

A. No; we would have—of course, the holes in the frame are cast in the foundaries. In order to do



(Testimony of Charles F. Brookhart.)

that you would have practically to erect the machine in the shop, because the custom of erecting these machines, is you ship all the material into the packing-house, unpack it on the floor, and then erect it.

Q. Now, the part of the frame on which these brackets is fastened is level, as I understand you to say? A. Yes, sir.

Q. Then from the belt to B, and from the belt to A, is how much?

A. Approximately an inch and a half.

Q. Now, couldn't you raise the bracket next to B an inch and a half in the frame to which it is fastened without [502] using the slot and bolt and get that alignment perfectly?

A. I don't just understand what you mean. Of course, we use that slot in order to apply the machine work.

Q. I know you use it for that purpose, but suppose this bracket was solid and didn't have that slot, and suppose this was cast solid and didn't have that slot, and this run clear down to where the bracket is fastened onto the machine?

A. As if it were one piece?

Q. Yes, as if it were one piece. Now, couldn't you arrange the distance of this roller from the belt by adjusting the beam or rafter, or whatever it is that this bracket is fastened to, by raising that piece an inch and a half instead of having it level, having it on an incline the same as these rollers are?

A. Why, do you mean to cast that bracket in one piece?

(Testimony of Charles F. Brookhart.)

Q. Yes, sir.

A. You could do that by having twelve different patterns made.

Q. Why can't they all be cast the same?

A. The distance is different.

Q. Can't you adjust the difference by fixing the beam on which they are fastened, by raising that and lowering?

A. No, sir; it is one slotted casting.

Q. I know.

A. I guess I don't catch your drift at all, your Honor.

Q. It seems to me like it is plain enough. Let us [503] assume that these castings are all cast solid, and they are all the same size. A. Yes, sir.

Q. Now, you want the line A-B an inch and a half farther from the belt at B than it is at A?

A. Yes, sir.

Q. Couldn't you do that by fastening the bracket near B an inch and a half higher on the frame to which it is fastened?

A. Well, we would do that by leaving that hole blank and drilling the hole to fit.

Q. Can't you answer the question yes or no.

A. That is my understanding of it, yes, sir.

Q. Now, these brackets are all fastened, I take it, to a beam or scantling, or what do you call it?

A. It is a cast frame which sets on each rafter.

Q. These brackets are fastened onto a casting?

A. Yes, sir.

Q. And this casting is straight?

(Testimony of Charles F. Brookhart.)

A. Yes, sir; it is just a rafter like.

Q. And this runs along parallel to the machine straight and level? A. Level.

Q. Now, if you raise that casting at the end an inch and a half, wouldn't it raise these rollers an inch and a half?

A. No; it would raise the whole table on which your [504] belt runs.

Q. Couldn't you raise the casting without raising the table?

A. When you fasten the brackets on the casting, you can't change the distance on the table from which your belt runs to the center of your bearing; you must have some way of getting your distance between the belt, table and the center of your bearing.

Q. Well, now, this beam to which these brackets are fastened—let us call it a beam, get a name for it.

A. We call it a frame.

Q. A frame?

A. A rafter, rather. It supports that inclined table for the belt.

Q. Yes. Does that have to be on the same level with the belt?

A. Well, we will have to put a board underneath that belt upon the table.

Q. Well, does this rafter have to be on the same level with it?

A. Well, as usual it ought to be on a level.

Q. Why?

A. The bins and all that constitutes the frame of the machine.

(Testimony of Charles F. Brookhart.)

Q. What difference does it make if the bins are raised an inch and a half? [505]

A. You don't get any advantage. You have got to have an adjustment between your belt, table and the center of your shaft to get your greater distance in the length of your machines. You have got to have that difference to take care of your larger fruit. You must have some means of increasing that distance.

Q. Now, if you raise this rafter an inch and a half at B, I don't see how that will affect the bins.

A. It will raise the bins right with it.

Q. That wouldn't hurt the bins very much to raise them an inch and a half? A. That wouldn't do.

Q. Couldn't you raise that frame—that rafter without raising the belt?

A. It is all about right together in one piece.

Q. I know it is on that machine, but is that necessary to construct it that way? That is what I want to get at.

A. I don't know of any other way myself. I don't know of any other way to construct it, because you would have to have a difference between points, and that is the only way I know to get it, by means of a longer bearing in there between the B end and A end, and the distance between the center of your shaft and the belt table.

The COURT.—I wish I could see that machine now after I have heard all this evidence.

Q. (By Mr. LYON.) Mr. Brookhart, is the machine which is [506] in Orange county just out-

(Testimony of Charlès F. Brookhart.)

side of Tustin practically identical with these Porterville machines?

A. Yes, sir; there is a machine there somewhere; I have never been down there, and I don't know where it is located.

Mr. LYON.—I will offer to do this, to transport the Court, clerk, stenographer and party to that machine to-morrow morning if the Court wants to see it again, at plaintiff's expense. It will make a ride of about, possibly, 40 miles each way, Judge.

The COURT.—Have you got any further evidence, Mr. Lyon?

Mr. LYON.—Yes; I have got a little.

The WITNESS.—Is that all?

The COURT.—Yes. That is all.

Mr. LYON.—I want first to call the Court's attention to the fact that the Ellithorpe patent referred to by defendant, and as Defendants' Exhibit I, and of which the model I' is supposed to be a copy, was before the Court as an exhibit in case number 207 in the northern division, and this case should be considered in that connection, and I don't wish to incumber the records of this court with another copy of that patent, and consequently present to counsel at this time the certified copy of the patent, which is Defendants' Exhibit Number 23 in that case, and ask him if he will stipulate that it was before the Court in that case.

Mr. ACKER.—Well, I have no knowledge of this case, Mr. Lyon; I wasn't the attorney in the case, and I do not know what [507] use the attorneys—



(Testimony of Charles F. Brookhart.)

The COURT.—What is the exhibit?

Mr. ACKER.—It is an exhibit in this Pioneer fruit case.

Mr. LYON.—This is the exhibit, and has Mr. Van Dyke's signature on it. I don't want to put a second copy in the case, but I will offer it if counsel will stipulate.

Mr. ACKER.—It is already in the case, the patent I have introduced in evidence.

Mr. LYON.—All I offer it now is to show it is marked in this court number 207, to prove it was before the Court and considered in that case.

Mr. ACKER.—I am willing, your Honor, to stipulate that this patent, and I will take Mr. Lyon's statement on it, was introduced in evidence in some case pending in this court, of which I have no knowledge.

The COURT.—File the exhibit, Mr. Lyon.

Mr. LYON.—All right.

**Testimony of Fred Stebler, for Plaintiff (Recalled in Rebuttal).**

FRED STEBLER, the plaintiff, recalled as a witness, in rebuttal, having been previously duly sworn, testified as follows:

**Direct Examination.**

(By Mr. LYON.)

Q. Mr. Stebler, you were present during the taking of the deposition of Mr. Beikhaus and the others at Hanford, which have been read in evidence?[508]

A. Yes, sir.

Q. And in company with Mr. Beikhaus and coun-

(Testimony of Fred Stebler.)

sel for the defendant, and myself, inspected the machine which he refers to?     A. Yes.

Q. State whether or not the belt apparatus in connection with that machine is capable of being used for the purpose of the distributing apparatus of Plaintiff's Exhibit Number 2, the Stebler patent, giving your reasons for any conclusions which you express.

A. I don't consider that apparatus to be used with success.

Q. (By the COURT.) Which apparatus is that?

A. The Beikhaus apparatus.

Q. What?     A. The Beikhaus.

Mr. LYON.—That is this Hanford machine.

The WITNESS.—The Beikhaus apparatus could not be used with success as a substitute for our distributing apparatus for handling oranges, for the reason that in the first place the sizer itself is not adapted for handling oranges and never has been used to my knowledge. In the second place, the distributing belt in connection with it is very narrow, and is not provided with any adjustable guides for controlling the fruit, as it is carried thereon, or controlling the distribution of the fruit carried thereon.

Q. With regard to adjustable bins, what have you to say [509] in regard to that machine?

A. There are none.

Q. Now, as regards the extensibility and adjustability of the bin space, and the flexibility in that respect, what have you to say in regard to this Beikhaus machine as compared with the device or apparatus of your patent, Plaintiff's Exhibit Number 2?

(Testimony of Fred Stebler.)

A. Well, it has no—practically no adjustability or no flexibility, for the reason that the belt—distributing belt in that case is provided with outlets corresponding to the outlets in the sizer.

Q. In other words, the member of these belts at right angles, on which each have one pivoted gate or switch correspond to a given size, is that it?

A. Yes, sir.

Q. And if you switch the output from one of those to the next belt, what would you do with the grade of fruit which is coming out of the next aperture?

A. Well, he would have to discontinue putting that grade out of that next aperture.

Q. Then, would you say that this Beikhaus machine would be practical or impractical for use as a distributing apparatus in connection with an orange grader?

A. Well, in its present form it would be utterly impracticable.

Q. Are you familiar with the Ellithorpe patent, [510] Defendants' Exhibit I, and have you examined Defendants' Exhibit I', the model thereof, or alleged model thereof? (Handing copy of the patent to the witness.)

A. I have examined this patent, yes.

Q. Did you ever see an apparatus constructed substantially like that patent, or embodying the mode of operation and inter-relation of parts described or shown therein?

A. Yes; I think I recall seeing an apparatus constructed almost identical in accordance with the drawing in figure 10.

(Testimony of Fred Stebler.)

Q. Where was that apparatus?

A. I saw it at Orange, California.

Q. Orange, California?      A. Yes, sir.

Q. Do you know what became of it?

A. I do not.

Q. Do you know what success they had with its use as an orange grader?

A. I don't know that they had any success at all with the use of it; it was not in use when I saw it.

Q. What was its condition when you saw it?

A. Well, it was practically dismantled, so far as the bins and driving means were concerned, and set outside of the packing-house outdoors.

Q. Now, based upon your experience, what have you to say as to whether a device constructed in accordance with the [511] disclosure of this Ellithorpe patent, Defendants' Exhibit 1, would or would not be practical as an orange grader or sizing machine?

A. I don't think it would be practical.

Q. Why not?

A. Well, in the first place, the mechanical details of construction of that machine would kill it as a practical machine.

Q. What particular details, for example?

A. Well, take for instance that traveling conveyor there, which is whipped around a number of pulleys in this case, in this model, of course, there is only three grading sections, and therefore the labor and friction on the sectional traveling conveyor would be such that to make an extended machine as it would

(Testimony of Fred Stebler.)

have to be in order to make it practical would be such that I know of no material or no fabric that that conveyor could be made of that would stand it. It would simply tear itself in two trying to drive it and keep it in motion. The reason for that is that the increased and added number of pulleys you would have to run it around, each and every one of those would increase the friction, not only the propelling friction but the breaking friction in the fabric itself, so much so as to make it a practical machine, and in order to make it practical, it would have to be extended considerably beyond what this model is; I don't believe it could be done. [512]

Q. Now, in regards, Mr. Stebler, to the adjustment of the traveling member toward and away from the roller, would you consider that practical or impractical?

A. I shouldn't consider that practical.

Q. What would be the effect if constructed as constructed in this model, of simply adjusting these wooden pieces toward or away from the belt?

A. Well, as long as you adjust them toward the belt, if you once got them up against the belt, I presume you could adjust that belt within reasonable limits, but when you come to adjust it backwards and away from the belt, it is a question of whether the belt would follow it or not.

Q. Would the adjusting towards the belts, and therefore, toward the roller, tend to increase the friction and labor, I believe you termed it, upon the pulleys?



(Testimony of Fred Stebler.)

A. It would increase the friction and labor on the conveyor.

Q. And that is one of the things you referred to as the reason why you thought, based upon your experience, such a device would be impractical?

A. Yes, sir.

Q. Did you ever see otherwise than in this abandoned machine at Orange, anything which utilized that general construction or mode of operation?

A. No, sir.

Q. (By the COURT.) Have you got that patent? (Handing patent to witness.) [513]

Q. (By Mr. LYON.) I show you Defendants' Exhibit Stevens Patent 247,428, being Defendants' Exhibit "D," concerning which certain depositions have been read as to certain making and using of such devices in Florida. I also show you in that connection the photographic exhibits of such machines. Are you familiar with this device?

A. Yes, sir.

Q. Would such a device as this Stevens device, in your opinion, be practical or impractical as a fruit grader in a packing-house where it was desired to handle any considerable amount of fruit?

A. I wouldn't consider it a practical machine for present modern methods.

Q. Why not?

A. Well, in the first place, it depends on the gravity alone to propell the fruit through it, which would necessarily not only retard its capacity, lower its capacity, but I think would be injurious to the fruit.

(Testimony of Fred Stebler.)

In the second place, on account of this gravity feature, the gradeway has to be set at a considerable incline, which will necessitate having a feed end of the machine considerably above the bins, which latter would necessarily have to be level; that would mean a considerable drop, no doubt, from the higher end of the machine into the bins. These photographs, however, do not appear to show any bins in connection with the machine.

Q. And as to the economy of floor space in a packing-house, [514] as compared with either the defendants' grader at Porterville or the graders which you manufacture under the patent in suit, what have you to say?

A. Why, I presume the floor space occupied by them is approximately the same.

Q. Does that device have the same principle of action, or mode of operation as either the Robert Strain grader of Plaintiff's Exhibit Number 1, or the Thomas Strain grader of Plaintiff's Exhibit Number 3?

A. You are speaking now of the Porterville machines?

Q. No; I am speaking of this Stevens machine, or of the Stevens patent, and of the photographs.

A. No; I see no like principle of operation in the Stevens machine, in either the Thomas Strain or the Robert Strain machine; no similarity whatever that I can see.

Q. There is no traveling conveyor in either of them, in either the patent or the photographic ex-

(Testimony of Fred Stebler.)

hibits, is there? A. No, sir.

Q. And there is no rotary wall member in either?

A. No, sir.

Q. (By the COURT.) Those things don't roll in the Stevens patent? A. No, sir.

Q. (By Mr. LYON.) Now, you heard the testimony of Mr. Ofstad and Mr. Sifford in regard to this camel-back distribution system, have you?

[515] A. Yes, sir.

Q. Have you any knowledge of the installation in the Riverside Heights Orange Growers Association Packing-House Number 10 at Riverside of the camel-back system? A. Yes, sir.

Q. In which one of those packing-houses was that located, the so-called Fay house, or the north house which burned?

A. Well, I remember fairly distinctly they had such machines in the north house that burned.

Q. And with what machines were those substituted?

A. With mine when the house was rebuilt. [516]

Q. Now, what machines was it that were substituted by the Parker machines which were held to be an infringement in suit No. 1562 in this court?

A. Why, I think they substituted one or two of my machines with the Parker machines, and also, I think, they had an old grader of some kind in the Fay house which they also substituted with my machine.

Q. Was the old one of yours one of the rope graders? A. One of the rope graders.

(Testimony of Fred Stebler.)

Mr. LYON.—I don't know that your Honor understands what we mean by the rope grader, but that was the old Cerrutti type of two ropes running together on a level, horizontally, but diverging as they went away from the inlet end and creating a slot, which increased, as the oranges traveled.

Q. Now, in that camel-back installation, how did the results compare with the results which can be secured by the distributing apparatus of your patent, Plaintiff's Exhibit No. 2?

A. Well, I suppose the best way to compare the results would be to describe them. In the camel-back machine, of course, it was not possible to make the bins very long, as the graders were not long, and in order to get the bin room it was customary to make every alternate size come out at alternate sides of the grader. For instance, in ten sizes, they would have five sizes—four sizes on one side [517] and four on the other, possibly, and one on the end, so that the bins were necessarily wide and short, the result of which would amount to, in a double grader, reducing it to the capacity of a single gradeway in effect, although they usually employed double gradeway machines. Now, one of the first things that I did, and one of my—one of my main efforts that I have worked on from the time I entered this business was to lengthen this grader. My first effort was to use the rope grader, which was found unsatisfactory, for the reason that we couldn't get the distribution through to the bins satisfactorily, and then when we got the Robert Strain grader, we could make that

(Testimony of Fred Stebler.)

the full length of the bins. That was also unsatisfactory, so far as the distribution of fruit was concerned, it being understood that the camel-back was unsatisfactory because it depended on gravity to roll the oranges from where it was delivered to the bins, which was always recognized as objectionable. The logical way out of this difficulty, of course, was the belt, the traveling belt distributor, which obviated rolling the oranges this distance, and when we got this, of course, we could employ our double grade-way to practically unlimited extent, with the result that we very much increased—we were able to enable the packers to increase their output very materially.

Q. You have kept pretty closely in touch with all of the installations of packing-house equipment in California. [518] in the last 12 years, haven't you? A. Yes, sir; and longer than that.

Q. Since your first bringing onto the market this distributing system of your patent, Plaintiff's Exhibit 2, have you known of any installations of the camel-back distribution? A. No, sir; I have not.

Q. You know what is referred to as the Rayburn Overhead System? A. Yes, sir.

Q. The Defendants' Exhibit "J" shows such a system, does it? (Handing copy of patent to the witness.) A. Yes, sir.

Q. Did that system prove satisfactory and successful?

A. Well, it was thought successful for a time, for the reason that it gave them a more flexible distribution of fruit, but it was finally discarded as unsatis-



(Testimony of Fred Stebler.)

factory for the reason that it had the old difficulty and the old objection of the rolling fruit.

Q. (By the COURT.) Of what?

A. Of rolling fruit in the gravity chutes, which never was thought good practice.

Q. You have heard the testimony in regard to one of the camel-back installations being at this Highlands packing-house of Gleghorn. Have you ever been in that packing-house? [519] A. Yes, sir.

Q. Do you know what the system of distribution there is?

A. They have one of these overhead systems.

Q. The Rayburn Overhead Systems?

A. Well, it was built—practically the same thing, yes. I don't think Mr. Rayburn himself built it, but it was usually known as that type of machine.

(Informal discussion.)

The COURT.—We will adjourn court until to-morrow morning at 10 o'clock.

(Whereupon, at the hour of 4:15 o'clock P. M., an adjournment was taken until Saturday, July 15, 1916, at 10 o'clock A. M.) [520]

*In the District Court of the United States, for the  
Southern District of California, Southern Division,  
Ninth Circuit.*

Hon. OSCAR A. TRIPPET, Judge Presiding.

A—44 EQUITY.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,  
Defendant.

A-45 EQUITY.

FRED STEBLER,

Plaintiff,

vs.

MID-CALIFORNIA CITRUS ASSOCIATION,  
Defendant.

A-50 EQUITY.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,  
Defendant.

**Reporter's Transcript.**

Filed as of Aug. 8, 1916. Wm. M. Van Dyke,  
Clerk. By Leslie S. Colyer, Deputy Clerk. [521]

(Testimony of Fred Stebler.)

Los Angeles, California, Saturday, July 16, 1916.

10:00 A. M.

FRED STEBLER, recalled, direct examination resumed.

(By Mr. LYON.)

Q. Referring, Mr. Stebler, to the Rayburn Overhead System of Distribution, do you know to what extent that system is now in use?

A. I do not really know of a single machine that is now in use, unless it would be this one at Cleghorn's house at Highlands.

Q. With what have they been substituted? I mean the overhead systems?

A. With the belt distributing system.

Q. How? A. With the belt distributing system.

Q. Like your patent Exhibit No. 2?

A. Yes, sir.

Q. I show you Defendants' Exhibits "O," "P" and "P'." Do any of these photographs resemble the Rayburn Overhead System? (Handing photographs to the witness.)

A. I should not say so.

Q. Why not?

A. Well, in the first place, one of the main features in the overhead system was the fact that the grader was set probably five or six feet above the bins, and the fruit was [523] let down to the bins from this grader with a system of gravity chutes. The chutes, however, from this grader, in all such cases, leading directly from the grader, leading at direct right angles with the line of travel of the fruit in the

(Testimony of Fred Stebler.)

grader. In other words, there was none of them diagonally leading from the grader, whereas, in these photographs practically all of the chutes are diagonal. It also does not appear from these photographs that the grader is any such distance above the bins in elevation.

Mr. LYON.—I offer in evidence a certified copy of the Thomas Strain patent, which is Plaintiff's Exhibit No. 3 in this case, and which was Defendants' Exhibit No. 25 in Case No. 207 in the Northern Division of this court, Stebler vs. Pioneer Fruit Company, the same being the original exhibit in that case, for the purpose of showing that patent was before the court and considered in that case on the defense in regard to the Stebler Distributing System.

Mr. ACKER.—Objected to as incompetent, irrelevant and immaterial.

The COURT.—I thought that patent was introduced yesterday.

Mr. LYON.—No; this is another one. This is not the patent that was introduced last night. There is a copy of the patent in evidence.

Mr. ACKER.—That is, a copy of the patent in suit, is it not?

Mr. LYON.—Yes; this is one of them, but the only purpose of this offer is to show that this patent was before the court [524] upon the defense in case No. 207. I have no desire to incumber the records with an extra copy of these patents, but I want to show that fact, and *that one* fact alone.

Mr. ACKER.—If your Honor please, what bear-

(Testimony of Fred Stebler.)

ing has it upon this case?

The COURT.—Let it be filed. I don't know what bearing it has.

The CLERK.—Complainant's Exhibit No. 14.

Q. (By Mr. LYON.) You heard the testimony of Mr. Brookhart in regard to the slotted brackets on the defendant's machines at Porterville?

A. Yes, sir.

Q. Based upon your experience in the manufacture of graders and your mechanical experience, what have you to say as to the necessity of the utilization of such slotted construction therein for the purpose of simply originally aligning the rollers?

A. Why, I don't consider those slots necessary.

The COURT.—Let us see. Wait a minute. I don't understand that. Read that question.

(Last question read by reporter.)

The WITNESS.—Read the answer, please.

(Last answer of the witness read by reporter.)

A. For that purpose alone.

Q. (By Mr. LYON.) What have you to say in regard to this testimony? [525]

The COURT.—I don't understand what he is talking about, Mr. Lyon.

Mr. LYON.—Mr. Brookhart stated that the slotted brackets which carried the bolts and nuts D' were solely used for the purpose of originally aligning these roller sections in the defendants' machines, and that was the only practical manner, and that in answer to your Honor's question, there was no other



(Testimony of Fred Stebler.)

practical manner in which this mounting could be effected.

The COURT.—Now, what is your testimony?

The WITNESS.—My answer to the question was I didn't consider those slots necessary for aligning those rollers alone, because other means could be found for doing that.

Q. (By Mr. LYON.) What, for instance?

A. Well, I think if I was building that machine, I don't think I would put those slats in there for that method of adjustment and alignment simply for the first and permanent alignment of those rollers. In the first place, it is subject to the objection of getting out of alignment; in the second place, if a permanent alignment alone is required, it seems to me a better way and an equally good way and a cheaper way would have been to have parted that casting in such a way either at the point where it rests on the bins, which are level, or at the point where the bed supports the traveling conveyor, which is the opposing member of the gradeway, and simply made a flange joint there, for instance, at the point of the— [526] somewhere at the point of the conveyor support, and put in shims of varying thickness would have been one way; for instance, thicker shims from the supporting table on up to the discharge end.

Q. (By the COURT.) Are these brackets fastened to the bins?

A. Yes; my recollection is they are fastened to the bins.

Q. Well, couldn't the conveyor belt have been

(Testimony of Fred Stebler.)

lowered at the lower end an inch and a half, continuing the level?

A. That would have thrown the conveyor belt out of level with reference to the bins, which might have been objectionable. In other words, I presume it would have been desirable to maintain a conveyor belt on a level with the bins for obvious reasons; for instance, if the conveyor belt were lowered at the discharge end in order to acquire that inch and a half variation, it would have narrowed the apparatus for the fruit where it egresses from under there, so that while that also would have been possible—

Q. Wouldn't the bins have been lowered along with it?

A. Well, that, of course, would have been possible, although I don't think that would have been practical. It is desirable, of course, to maintain the bins at a uniform level.

Q. (By Mr. LYON.) Now, this shim construction that you speak of, how would that have been compared with the expense of making these two part slotted castings?

A. Well, the expense of making the castings alone probably would have been equal, but in that case, he would have been [527] saved the expense of the adjusting screws.

Q. Then the total construction, in your opinion, would have been cheaper with the shim construction, or more expensive?

A. I would say it would have been cheaper.

Q. Now, Mr. Stebler, in regard to the adjustment

(Testimony of Fred Stebler.)

of these same brackets that adjustment then takes only the vertical up and down adjustment, does it?

A. Well, it is not exactly a vertical adjustment. If you remember, it is an adjustment at right angles at the base of the conveyor belt, which is probably an angle, as I remember it, of 30 or 45 degrees off the horizontal.

Q. Well, does that adjustment in any manner take the alignment by connection longitudinally of the machine, so as to effect the question of whether the rolls are in longitudinal alignment, or the connecting portions in actual longitudinal alignment the length of the roller size of the runway.

A. I am not sure I understand your question, but as I understand it, it goes to the question of the adjustment of these brackets, either aligning these rollers or throwing them out of alignment.

Q. That is it.

A. Of course, if the machine was intended to be originally set up and the rollers maintained in practical alignment, or straight line on their casting, then to remove one of these castings would naturally throw them out of alignment to a slight extent. [528]

Q. Well, in casting such castings, you have seen them, haven't you?      A. Yes, sir.

Q. They are rough castings, aren't they?

A. They are.

Q. What degree of regularity in that respect can you ordinarily secure in such class of castings?

A. Well, castings—it is quite generally understood, I think, that castings as they come from the

(Testimony of Fred Stebler.)

foundry and not machined, are not uniform and straight.

Q. And as to such canting with respect to the roller, what have you to say?

A. Well, it being understood that the castings come from the foundry rough, and are not machined as to alignment on the bases on which they are moulded together, or on which they rest on the bins, it is obvious to anyone who has ever handled that class of work that while one of those castings might be straight, two of them might lean or cant, in other words, out of plumb, or out of alignment.

Q. How would that affect this joint between the roller sections?

A. Well, I should say if the casting itself were not machined in any of its bases or any of its joints, that you couldn't depend on any two of these castings to maintain bearings in any alignment. For instance, if the two castings were transposed, and one placed in each other's place, [529] that would be hardly likely; in fact, quite unlikely that they would duplicate each other in exact alignment on that account.

Q. Now, I show you Defendants' Exhibit "N," Mr. Brookhart's sketch of this joint between the sections of the roller in the defendant's machine. You understand the construction intended to be illustrated thereby, as described by Mr. Brookhart?

A. From my previous knowledge of what this thing was, I think I can arrive at the conclusion as to what he was trying to show, although I think his drawing is imperfect as to what it is really intended

(Testimony of Fred Stebler.)

to show to this extent, that probably a man not familiar with that device could not understand it.

Q. Well, bearing in mind what you said in regard to the canting of these castings, and bearing in mind the fact that in December last while the Court and counsel, yourself, and Mr. Parker were present in the packing-house of the defendant, Porterville Citrus Association, we adjusted one of these connections a full quarter of an inch, or two grades, as shown by the grader gauge that we used at the time, what have you to say in regard to Mr. Brookhart's testimony of the fit of this joint?

Mr. ACKER.—If your Honor please, it seems to me the question is exceedingly leading. I have no recollection of any adjustment having been made.

The COURT.—It is rebuttal testimony. I think he is right [530] in asking leading questions.

Mr. ACKER.—I have no recollection of any adjustment having been made in any rollers that Mr. Lyon refers to in his question.

The COURT.—I don't understand the question. Read the question.

(Last question read by the reporter.)

The COURT.—I don't think it is proper ever to ask the witness about another witness' testimony.

Mr. LYON.—I am only asking what he said about the fit, not about the testimony.

The COURT.—That is what you are asking, about what he said in his testimony.

Q. (By Mr. LYON.) Well, in the first place, Mr. Stebler, do you remember in December last when his



(Testimony of Fred Stebler.)

Honor, Judge Trippett, Mr. Acker, the defendants' counsel, myself, yourself and Mr. Parker were present in the Porterville Packing House at Porterville?

A. I do.

Q. What adjustment did we make of one of these joints on the defendants' machine at that time we were there?

A. I recall that we got up on top of the machine—that is, we stood in the bins and called for a wrench and some one handed us a monkey wrench, and we loosened the riveted bolts on one of these joints enough so we could adjust this joint, as I remember it, about two sizes on the grader gauge, and [531] retightened it to that position.

Q. And did you observe the joints during that action?

A. Why, only in this way: Of course, the machine was intact, and the joint—that is, the internal parts of it, were invisible, yet I think while we were making this adjustment the machine was running and continued to run.

Q. Now, then, in view of that, and in view of your knowledge of mechanics, can you tell us whether with such a joint it would be practical to run such machine, we making the adjustments in that manner to affect the grade?

A. Well, of course, that is the effect in mechanics of what we call throwing the bearing out of alignment, and if that bearing was very neatly fitted, it might cause it to bind, make it run tight, so much so as to possibly, I expect, have the effect of stopping

(Testimony of Fred Stebler.)

the rotation of that roller. You should remember, however, that when those rollers are probably not to exceed four feet in length, forty-eight inches, the mere adjustment of them one-quarter of an inch at one end, does not affect any very seriously in putting them out of alignment, and supposing that this bearing was free enough to run in the first place, and that the bearing on the—the length of bearing on this hub, as indicated in this drawing, which, however, is not specified as drawn to scale, although I assume it is life-size—the length of that bearing in that case appears to be just about one inch, or a little bit less. Unless this bearing is fitted very neatly [532] and very tight, I don't think it would prevent its operation.

Q. (By the COURT.) Well, if you didn't have it in alignment, then that connection between the end of the roller and the casting connected with the next roller would have to work sort of as a bell and socket joint, wouldn't it?

A. In that sense, yes; I think it is true.

Q. If it were not in alignment, that boxing would have to be moved, as a joint, as a bell and socket joint?

A. Well, I think the bell and socket action expresses that, although it is—well, it goes to that principle, yet it is so small that it would be imperceptible. In other words, the action corresponding to the bell and socket action would be imperceptible.

Q. (By Mr. LYON.) When you say the action is so small, just what do you mean, small in that respect?

(Testimony of Fred Stebler.)

The COURT.—Well, the movement of the male member and the female member of that connection would be so small that it would be practically frictionless.

The WITNESS.—I think that is true.

Q. That would depend upon the distance or lack of alignment, wouldn't it?

A. Well, the extent of friction, of course, would depend upon that.

The COURT.—Of course.

Mr. LYON.—You may cross-examine, Mr. Acker.  
[533]

Cross-examination.

(By Mr. ACKER.)

Q. In this camel-back installation which you have examined concerning Defendants' Exhibits "P" and and "P'," and Defendants' Exhibit "O," how was the sizing roller mounted relative to the gradeway?

A. I don't know as I understand just what your question is directed to.

Q. What supports the roller member of the runway of the said camel-back sizer?

A. Bearings.

Q. What is the character of those bearings, and how are those bearings supported relative to the frame of the machine?

A. They are supported by castings bolted through the frame of the machine.

Q. Those bearings are attached to the frame of the machine by means of a slotted bracket?

A. I believe so, yes, sir.

(Testimony of Fred Stebler.)

Q. How many of those slotted brackets are employed in that construction?

A. In this particular construction?

Q. Yes. A. Apparently about four.

Q. And through those brackets extended a screw bolt on which a nut is screwed to hold the bracket to the frame, is there not? [534]

A. That appears in the photograph you have now just handed me, yes.

Q. And if you wished to change the adjustment of that sizing roller, how was it accomplished?

A. By loosening the nut.

Q. By loosening the nut and moving the bracket in and out? A. Yes, sir.

Q. You manufactured and installed devices of that character, did you not, Mr. Stebler? A. Yes, sir.

Q. And how early in the art did you begin the installation of such forms provided?

A. I think probably 1902 and '3?

Q. 1902 or '3? A. Yes, sir.

Q. Do you know of any sizer which was installed in that manner prior to 1903? A. Yes, sir.

Q. Where?

A. Where these sizers that have been mentioned in our previous testimony in this case, the Riverside Heights Orange Growers Association, the camel-back.

Q. Now, how are they initially installed? How was the sizing roller initially installed for securing the proper proportion of grade discharge outlets for the sized fruit?

(Testimony of Fred Stebler.)

A. Read me the question, please. [535]

(Last question read by the reporter.)

A. Well, in the first place, all of these machines I ever saw from the beginning had what we term the graduated step roller mounted in these sliding or slotted bearings.

Q. That constituted, so to speak, a single roller, and the whole of it driven in unison from power applied at one end? A. Yes, sir.

Q. And as I understand, in the initial installation of the sizing roller, and to put it in the proper position for the initial or original installation, you employed the slotted bracket? A. I think also.

Q. That was then common practice for initial installation of the roller to employ a slotted bracket with a screw bolt extended through the slot, and a nut screwing onto the bolt to hold the bracket in its adjusted position? A. It was.

Q. That was the same form of bracket to all intents and purposes as the bracket employed in the Porterville installation for initial or original setting of the line rollers.

A. So far as the bracket is concerned, yes.

Q. So that was a common bracket in the art for that purpose?

A. Not exactly a common bracket, you should not say, because these brackets in the Porterville machine are new.

Q. I understood you from your testimony, Mr. Stebler, that [536] if you had been installing the rollers of the defendants' machine, this continuous



(Testimony of Fred Stebler.)

rotating wall member, that you would not have employed slotted brackets for initial installation, and for securing the original alignment of the roller member relative to the fruit runway?

A. That is true, based upon the assumption that it was to be one setting or one initial alignment made and maintained thereafter.

Q. And why is it in your original setting of the earlier machines installed by you, and prior to either of the patents in suit, you employed the slotted brackets for original installation in setting?

A. Because they were expected to be moved thereafter.

Q. Moved thereafter during the operation of the machine? A. Certainly.

Q. For varying the sized fruit, the size of the fruit? A. Yes, sir.

Q. Now, in the device under the Bob Strain patent, how are those brackets arranged, and by the Bob Strain, I mean the reissue patent in suit?

A. Well, while they were—while the bracket itself was of a somewhat different character, yet it was slidably mounted in the frame.

Q. (By the COURT.) Was what?

A. Slidably mounted; adjustably mounted.

Q. (By Mr. ACKER.) A pair of those brackets supported a single [537] roller, did it not?

A. Yes; there was one bracket at each end of the roller.

Q. And how many rollers did you have, or how many rollers did you install in connection with those

(Testimony of Fred Stebler.)

machines?      A. Ordinarily about nine or ten.

Q. And if you installed nine or ten, we will say ten, you had eighteen brackets?

A. No, with ten we had twenty brackets.

Q. Twenty brackets if you had ten?

A. Yes.

Q. (By the COURT.) That would be two brackets to each roller?

Mr. ACKER.—Two brackets to each roller.

A. Yes, sir.

Q. And as I understand from your previous testimony, those rollers were not driven in unison; they were not connected from one to the other?

A. No.

Q. Separate and distinct. Now, in the camel-back device, how many rollers were employed, or roller sections?

A. Well, when I first made my advent into this business, we had what we termed as one roller, one continuous roller.

Q. That was the Ish device?

A. That was the Ish device.

Q. And following the Ish device, there was a grader brought onto the market known as the California grader, was there not?

A. No; the Ish device and the California grader were practically [538] one and the same thing.

Q. Then what form of California device or graders were placed upon the market?

A. Well, practically the same form as was in use at the time I came into this business, except that

(Testimony of Fred Stebler.)

they were lengthened. After the advent of the—I think it was after the advent of the Strain grader, the California people, the people who made the California grader in San Francisco, added another section to the end of their roller, made it, I think, about half again as long.

Q. Well, you had the California grader on the market with a series or roller sections more than two, connected one to the other, to be driven in unison, is that not correct?

A. No; I didn't have it on the market.

Q. Well, you knew of it being on the market, did you not, prior to your advent into the packing-house equipment business?

A. Not with the three section piece roller.

Q. How many?      A. Two.

Q. When did you first learn or know of the California sizer, and embodying therein a rotary wall member composed of a plurality of roller members united one to the other, to be driven in unison?

A. Well, I suppose that by plurality you may assume the machine that was in use when I first came to California, [539] having the two piece roller, would come under that head.

Q. Now, did you know of any that had more than two roller members connected one to the other to be driven in unison?

A. Not until the advent of the Robert Strain grader.

Q. Not until the advent of the Robert Strain grader? Now, how were the roller members of the

(Testimony of Fred Stebler.)

California sizer mounted; that is, the roller members of the roller rotating wall member of the fruit runway which were connected one to the other to be driven in unison? How were they mounted relative to the fruit runway?

A. Well, they were mounted alongside, or as we termed, parallel with the travelling conveyor in order to form one side of one wall of the fruit runway.

Q. How were they connected, one to the other?

A. They were connected, with a round pin. In other words, instead of being a square shaft in that case, it was round and carried a key. The end—the projecting end of this round pin entering into a socket in the joint, wooden roller, in such a way that the key also entered a key-way, so that when one section was rotated, the other had to rotate with it.

Q. Now, that formed or constituted a flexible joint union between the roller member sections of the rotary member, is that not correct?

A. Flexible to the extent that it was ever required for adjustment. [540]

Q. That is, you could move one member toward or from the travelling member of the fruit runway; that is, move it in or out, could you not?

A. Well, you could move this roller in and out.

Q. (By the COURT.) Move the roller in and out toward the belt? A. Yes, sir.

Q. (By Mr. ACKER.) Well, could you move the roller sections of that roller member?

A. Certainly.

Q. Well, how?

(Testimony of Fred Stebler.)

A. By adjusting this belt in the slot.

Q. Well, was each roller member mounted in an independent bearing bracket?

The COURT.—Now, what do you mean by “roller member?”

Mr. ACKER.—If your Honor please, the California grader, instead of it being a continuous roller, as, for instance, you saw in the model exhibit of Ellithorpe, it was divided into sections.

The COURT.—Well, each one of those sections constituted a roller, didn't it.

Mr. ACKER.—Not a roller in the sense that they were independently mounted and independently adjustable. They were connected one to the other by a flexible joint, so that this whole structure would rotate in unison.

The COURT.—Something like this in this picture? (Exhibiting photograph to Mr. Acker.)  
[541]

Mr. ACKER.—Like in that picture, your Honor.

Mr. LYON.—In other words, each one of those sections contained more than one diameter, and therefore affected more than one grade. It was just the same as if you took the step roller of the Ish patent and cut it into two pieces and had two or more of the steps on each one of the sections, as the Court of Appeals, has found in the 205 Federal, 735. There was no possibility with any of those forms, with the grader, of securing the individual or separate control of the grade openings.

The COURT.—Go ahead, Mr. Acker.



(Testimony of Fred Stebler.)

Q. (By Mr. ACKER.) Now then, each roller section of that continuous roll was mounted in two bearing brackets, were they not?

A. Well, I have kind of got lost. I don't know which roller or which machine you are talking about, Mr. Acker.

Q. I am talking of the California, the one that was made in more than one section, where the roller was made in more than one section.

A. What is it you wish to know?

Q. I wish to know if there were not bearing brackets for supporting each roller member of that roller?

A. I think I could answer that question yes and no.

Q. Well, please give me the answer yes, with any explanation you desire to add to it.

A. Well, yes, first of all, with this qualification: [542] That you might say the section—the bearing at any particular end of any one particular section did support that end of that roller; the adjoining roller was supported on the pin contained in that roller, which in common was supported in that same bracket.

Q. And they were slotted brackets?

A. Yes, sir.

Q. The same as the slotted brackets you have been testifying to? A. Yes, sir.

Q. (By the COURT.) Now, in what machine is this? (Witness handing photograph to the Court.) Now, let us see where are those brackets?

A. The brackets are here; here is one at the end.

(Testimony of Fred Stebler.)

(Indicating on the photograph.)

Q. Yes; I see that plain enough.

A. Now, here is the one here that supports the end of this roller, and the end of that roller is supported by this pin, which is, of course, a common bearing on this bracket. In other words, through the medium of this pin, this bracket supports both ends.

Q. Where is that bracket adjustable now?

A. Right down here; you see the belt there

Q. Where is the slot?

A. The slot does not appear in this photograph. Yes, it is, you see this slot—(Indicating). [543]

Q. Oh, yes, I see it.

A. There is also another bracket here. I think there is a sectional joint there, and also you will see a slot there, if you look there, and there is also a bracket at the outer end—the farther end of the roller.

Q. (By Mr. ACKER.) What knowledge have you concerning the devices illustrated by defendant's photo exhibit "O"? (Handing exhibit to the witness.)

A. I couldn't recognize this machine from the photograph, but I believe it has been testified here that this machine is now at the packing-house of the Upland Citrus Association, at Upland, California. That being the case, I do remember there is such a machine out in their cull shed used for sorting culls only.

Q. Do you know when that machine was installed

(Testimony of Fred Stebler.)

in the said packing-house?     A. I do not.

Q. When did you first see it in the packing-house?

A. Oh, probably fifteen years ago.

Q. And were the roller members of the rotary wall member of the runway supported by slotted bearing brackets?

A. I presume so, although you can't prove it by this photograph.

Q. What is your knowledge on the subject?

A. I have no definite knowledge as to that feature of this particular machine.     [544]

Q. Did you not take that machine apart?

A. What is that?

Q. Did you not repair that machine at any time?

A. I don't think so.

Q. Now, in connection with this Rayburn Overhead Distributor device which you have termed an overhead distributor, illustrated by Defendants' Exhibit "J," I understood you to state that the fruit was not distributed by that machine by means which were arranged diagonally to the sizer member, is that correct?     [545]

A. Well, I think you misunderstood me; I tried to qualify my answer there to this effect; that the immediate conveying means or distributing means from the sizer, or that immediately next to the outlets of the sizer, had a direction practically at right angles to the sizer, all of it. In other words, the particular chutes or runways of this gravity distributing system immediately next to the opening of the sizer were practically lateral, or at right angles

(Testimony of Fred Stebler.)

to the line of travel of the gradeway of the machine. Of course, beyond these, there are diagonal chute ways.

Q. Well, what reverse term "diagonal-chute-ways" is a continuation of the laterally extending chutes; is that not disclosed by the said patent? (Handing patent to the witness.)

A. That explains it.

Q. So as I understand you, the sized fruit first traveled in a lateral direction and then at a diagonal direction? A. Somewhat, yes.

Q. Now, did you install any machines in connection with the Rayburn patent? A. Yes, sir.

Q. You are the owner of the Rayburn patent, are you not? A. Yes, sir.

Q. And the Robert Strain patent is that which you now hold? A. Yes, sir. [546]

Q. And in connection with that device how did the discharge of the fruit—of the sized fruit—compare with the discharge of the sized fruit in the device of the Strain reissue patent, so far as being conveyed towards the bins?

A. Well, ordinarily in the Strain reissue patent, we did away with the camel-back; we had no such conveyor or distributing apparatus of any kind. The fruit dropped immediately from the gradeway directly into the bins. We had nothing of this kind in it.

Q. That is, it dropped by gravity in the same manner in which it flowed and dropped by gravity

(Testimony of Fred Stebler.)

under the Rayburn device, so far as the grader was concerned?     A. Yes.

Q. That is, there was no moving belt on which the fruit was received and guided into those chutes?

A. Neither was there any camel-back.

Q. No. I believe that held good as to the Strain reissue patent, and equally so as to the Rayburn patent?     A. What held good?

Q. There was no traveling belt on which the sized fruit was received?

A. There was no traveling belt on the Strain reissue patent, or Rayburn patent until I put it on.

Q. And in each of those cases the fruit rolled by gravity and dropped into the bin?

A. Unless arrested by some device.

Q. Was there any device in the Strain reissue patent, or [547] in the device of the Rayburn patent, for arresting it from rolling into the bin?

A. There is in the Rayburn patent.

Q. What is the means in the Rayburn patent?

A. That is the inclined chuteways.

Q. It runs down those inclined chuteways into the bins, does it not?     A. Certainly.

Q. Now, for what length of time was the sizer of the Bob Strain patent placed on the market by you, up to what year, and as disclosed by the said Bob Strain patent?

A. Why, I think, we began putting that machine on the market in 1903.

Q. And continued it up until what time?

A. We are still putting it on the market.



(Testimony of Fred Stebler.)

Q. I mean without the belt; there is no traveling belt in the device of the Bob Strain reissue patent for receiving the sized fruit, and I wish to know for what length of time you, as the owner of the Strain reissue patent, continued to place the device on the market without the traveling belt to receive the sized fruit.     A. Up to the fall of 1907.

Q. 1907?     A. Yes, sir.

Q. Did you know of any other device in use prior to 1907 where the sized fruit, as it left the discharge apertures of the sizing apparatus, was received onto a longitudinally [548] traveling belt, and prior, the belt over which the fruit afterwards traversed and before its discharge into the fruit receiving bins?

A. Read the question.

(Last question read by the reporter.)

A. No, sir.

Q. (By the COURT.) Is there a patent on that belt that runs over the distributing side of the machine?     A. Yes, sir.

Q. What patent covers that?

A. That is our patent, the Stebler Distributing Apparatus, I think our Exhibit 2 in this case.

Q. That is, the belt runs along after the fruit comes out of the grader, out of the separator?

A. Yes, sir.

Q. Runs along and carries the fruit toward the foot of the machine?     A. Yes, sir.

Q. (By Mr. ACKER.) You have reference now to the Stebler patent, Complainant's Exhibit No. 2, have you not?     A. Yes, sir.

(Testimony of Fred Stebler.)

Q. In answer to his Honor's question?

A. Yes, sir.

Q. Now, referring to the Strain patent, Complainant's Exhibit 3, I will ask you to examine the same and state whether in said patent there is disclosed a longitudinally [549] traveling belt onto which the sized fruit is received and over which the sized fruit travels transversely or diagonally, prior to the discharge thereof into the fruit receiving bins? A. No, sir.

Q. There is no traveling belt in the Tom Strain patent?

A. Well, that was not your question, or it was not my answer.

Q. I intended it to be my question.

A. Read the question.

(Question read by the reporter as recorded above.)

A. I consider my answer correct.

Q. Do you find in the said Strain patent, Complainant's Exhibit 3, a longitudinally traveling belt over which the fruit travels or moves, after leaving the discharge outlets, and in its flow of travel toward the distributing bins? A. Yes; that is true.

Q. Now, when did you see that device in operation for the first time?

A. I can't say definitely because I have to trust to memory solely without anything with which to fix the date, except that it was during the time it was in operation in Mr. Strain's packing-house, probably in 1903.

Q. (By the COURT.) Now, I don't understand

(Testimony of Fred Stebler.)

the difference between your answers in this case.

Mr. ACKER.—That is what I am trying to bring out, your Honor. [550]

A. I ask that that question be re-read, please, in order that I might point out what I consider a distinction.

The COURT.—Let us go to this machine here and see if we can find it. (Leaving bench and approaching model of machine used in case 1562.)

Mr. ACKER.—It is not on this machine.

The COURT.—I know it is not. Now, here is where the fruit comes out of this machine?

A. Yes, sir.

Q. Now, is there a belt on the Strain patent that runs along here?

A. Not a separate belt; that is the basis of my distinction. Mr. Acker's question was framed in such a way that it would make it appear it was received on a separate belt.

Q. Well, let us get one thing at a time. The belt runs along here where the fruit comes out of the separator? A. It is a continuation of this belt.

Q. Well, answer that question. Is there a belt that runs along there? A. There is to that extent.

Q. Well, does it run toward the foot of the machine, or the head of the machine?

A. It runs toward the foot of the machine.

Q. Is it the same belt that runs along before the fruit is separated? A. Yes, sir. [551]

Q. Is there any separation between the belt that

(Testimony of Fred Stebler.)

carries the fruit before the separation and carries the fruit afterwards, or is it the same width of belt?

A. It is the same width of belt; in other words, there is no separation whatever.

Q. This one particular belt, that carries the fruit before it is separated, and carries the fruit after it is separated? A. Yes, sir.

Q. Now, the fruit comes through the separator and runs over that same belt into the bins?

A. Yes, sir.

Q. Or by gravity? A. Yes, sir.

Q. And this belt might carry the fruit towards the foot after it comes out of the separator?

A. Yes, sir.

Q. (By Mr. ACKER.) Now, is that in the same action which takes place in the longitudinally traveling belt of the Stebler device, Complainant's Exhibit No. 2; I mean, the action which his Honor just asked you concerning?

A. So far as the action of carrying the fruit is concerned on this belt, it is.

Q. So a longitudinally traveling belt member, or on which the fruit was received, or onto which the fruit moved and across which it moved, after being sized, was well known [552] to you long prior to the date of the application which eventuated in the grant of the Fred Stebler patent, Complainant's Exhibit No. 2; is that correct?

A. Read the question.

(Last question read by the reporter.)

(Testimony of Fred Stebler.)

A. That is correct with reference to this Strain patent, yes.

Q. And well known to you long prior to the date of your invention of the device disclosed in the said Stebler patent, Complainant's Exhibit No. 2?

A. Yes.

Q. (By the COURT.) That is to say, you knew of the Strain patent a long time before you applied for your patent? A. Yes, sir.

Q. (By Mr. ACKER.) And before his date of invention of that device.

A. Yes, sir.

Q. Now, what function has the endless traveling longitudinally movable belt of the Stebler patent, Complainant's Exhibit No. 2, over the function performed by the endless longitudinally traveling belt of the Tom Strain patent, Complainant's Exhibit No. 3?

A. Read the question, please.

(Last question read by the reporter.)

A. So far as the belt alone is concerned, no, sir.

Q. So far as a propelling medium onto which the sized [553] fruit is received, it is the same, is it not, in function? A. Yes, sir.

Q. Then in the said Stebler patent, Complainant's Exhibit 2, the improvement over the Tom Strain patent, Complainant's Exhibit 3, resided in the superimposement of that traveling belt, the inclined chute members disclosed in the said Stebler patent; is that correct?

A. That and the fact of making them adjustable



(Testimony of Fred Stebler.)

and the bins adjustable.

Q. In the Strain patent, Complainant's Exhibit No. 3, what means, if any, as disclosed thereby, and what means, if any, were known to you prior to the date of your invention of the Stebler patent, Complainant's Exhibit 2 for arresting the transverse travel of the fruit in its flow towards the fruit receiving bins?

A. There was an adjustable guard thereon, indicated in this patent, with the designating numeral 36-B.

Q. And it was well-known to you prior to your invention of the Stebler device, Plaintiff's Exhibit 2, that the fruit after being arrested in its line of travel towards the fruit receiving bins would be carried forward by a longitudinally movable belt member until it was brought against an inclined surface which discharged it into the bins; is that correct?

A. Read me the question, please.

(Last question read by the reporter.)

A. I don't know that I can answer that question independently the way it is framed. The use of the term [554] "after being arrested" is confusing there. We don't have to arrest the fruit in its travel to the bins.

Q. In the device which you examined along about the year 1904, I understood you to testify that was constructed and placed in operation by Mr. Thomas Strain, who was one of the witnesses in this case. Did you find in said apparatus means for arresting the flow of the fruit in its path of travel from the

(Testimony of Fred Stebler.)

discharge outlets of the grader fruit-receiving bins?

Mr. LYON.—Just a moment. We object to that on the ground it is purely argumentative. The witness has stated he knew what these devices were and identified all the devices he knew, and the form of the question is simply an argument as to whether it contains certain features of an alleged combination; and on the further ground it is not cross-examination. The witness was not asked anything in rebuttal in regard to the Tom Strain device, whatsoever.

The COURT.—I overrule the objection.

A. Read the question.

(Last question read by the reporter.)

A. I can't be positive now, I did see any such device in the machines, although the patent shows it, and I presume it may have been there.

Q. (By Mr. ACKER.) You testified that you had examined that machine, did you not, Mr. Stebler?

A. Yes, sir.

Q. And you noticed the various devices on it, did you [555] not? A. I did.

Q. Now, will you say that you did or did not see such a device?

A. I wouldn't declare positively I did see it now.

Q. Well, did you see any means associated with said device and arranged at an inclination to a longitudinally traveling member for deflecting fruit or shunting it from off of said traveling member after it had been sized, and prior to being received into the fruit receiving bins?

(Testimony of Fred Stebler.)

A. I couldn't be positive as to that.

Q. Well, why is it, Mr. Stebler, that you are not so positive as to either of those features which are made a part of the letters patent which you purchased from Mr. Strain, but still you were so positive while on the stand that you had seen hinged leaves arranged beneath the traveling carrier, and for raising and lowering the same to vary grade outlets?

Mr. LYON.—Now, that question is objected to, a misstatement of the witness's testimony. The witness has not testified he was positive of that.

Mr. ACKER.—Your Honor, he made the statement—

The COURT.—Read the question.

(Last question read by the reporter.)

The COURT.—Well, I don't think the question as to why his memory as to that is important. I will sustain the objection to it. [556]

Q. (By Mr. ACKER.) Well, Mr. Stebler, I believe you testified in the examination of the said Strain device you had seen hinged leaves associated therewith for raising and lowering the belt, did you not?

A. I qualified that by the statement that I did not get under the machine to see them, which would have been necessary to see them to be sure of it. I do remember Mr. Strain made a statement to me that he had such a device, or it may be he said he expected to have such device. In other words, my memory in that respect goes to what Mr. Strain

(Testimony of Fred Stebler.)

pointed out to me. Now, I don't remember that he pointed out these deflectors you are talking about.

Q. Did you examine this Strain patent prior to the purchasing of the same?

A. Yes, sir; I think I did.

Q. (By the COURT.) You are talking of Exhibit 3? You are talking about No. 16 in figure 9?

A. No. 36 in figure 11.

Mr. LYON.—36-B.

Q. (By the COURT.) 36-B is not the same that raises and lowers the belt?

A. No, sir; 36-B is a deflector.

Mr. LYON.—That would be the obstruction that Mr. Acker has been speaking of; that states it.

The COURT.—It is supposed to throw the fruit off the belt [557]

Mr. LYON.—36 is the feature of the Strain patent which arrests—

The COURT.—Now, what he testified in his original testimony was he was not certain whether or not he saw it, was 16 in figure 9.

Mr. ACKER.—That is what I asked in my last question.

The COURT.—You said 9—you said 36.

Mr. ACKER.—Pardon me, I misunderstood you. We were talking about the hinged leaves.

The COURT.—Both of you said he was talking about 36.

Mr. LYON.—He also stated on his cross-examination—he does not remember having seen the parts 36-B in that machine; is that correct, Mr. Stebler?

(Testimony of Fred Stebler.)

A. That is correct.

Mr. LYON.—That is why I became confused; when he was first on the stand he said he did not remember seeing the parts 16. He now says he does not remember having seen the parts 36—B.

Q. (By Mr. ACKER.) In the Strain device, in answering his Honor's question referring to Model Exhibit in Equity Suit 2232, you stated the belt when extended from within the gradeway onto the inclined table, extended beyond the gradeway. Now, what means is there in the Strain patent which propels or imparts motion to that belt?

A. You are talking now about the Robert Strain patent?

Q. The Tom Strain patent, Complainant's Exhibit No. 2. [558]

A. Tom Strain, I should say the means of propelling that belt is the pulley over which it runs at the end of the machine.

Q. Now, isn't there a small belt disclosed in the said apparatus which moves wholly within the fruit runway, and to which the larger or wider belt is attached, so that the wider belt is propelled by the narrower belt which serves as a carrier therefor?

The COURT.—In other words, your question is as to whether or not the belt is a carrier or whether it is a belt.

Mr. ACKER.—Whether it is propelled; whether there are other means for moving it.

A. I think Mr. Acker, that is all one belt that runs over a common pulley at the end of the machine.



(Testimony of Fred Stebler.)

The drawings so show it.

Q. Now, how does that width of the longitudinally movable belt of the Tom Strain patent compare with the width of the belt employed in your apparatus disclosed by Complainant's Exhibit 2, as to the portion thereof beyond the sphere of the grade runway, beyond or outside of the sphere of the grading rollers?

A. If I understand your question correctly, the comparative width, the comparative available width of the conveyor belt on the Strain machine for a conveyor outside of the gradeway is very much narrower than it is in the conveyor belt in my distributing system. [559]

Q. Approximately how much narrower, Mr. Stebler?

A. Why, judging from the proportion of this drawing, I wouldn't suppose that the available width of this belt for conveying purposes only, outside of the gradeway, would be to exceed one-eighth of the width of my distributing belt. In other words, I judge from this drawing that the available width of the belt here for conveying outside of the gradeway would be not to exceed four inches, whereas, the belts used in my machine for conveying alone are 24 inches.

Q. In the Tom Strain patent, the belt is shown as extending to the edge, approximately, of the fruit receiving bins; is that not correct?

A. Well, apparently so, yes, approximately.

Q. How does the width of the longitudinally mov-

(Testimony of Fred Stebler.)

able belt in the Defendants' machine which you examined compare as to the width of the belt employed in your machine and situated outside of the grading member?

A. Well, in the defendants' machine the individual belts, I think, are only six inches; he employs two, and I think in some cases three of them side by side.

Q. And they run in different directions, do they not?

A. Where there is two they do run in different directions; where there is three, two of them in the same direction.

Q. (By the COURT.) You mean after the fruit passes out of the separator? [560]

A. Yes, sir.

Q. Were there *are* three belts? A. Yes, sir.

The COURT.—I don't remember there were three belts on the machine I saw.

Q. (By Mr. ACKER.) There were only two on the machines you examined; is that not correct?

A. I think on those machines there are only two belts.

Q. And they ran in opposite or reverse directions?

A. Yes, sir.

Mr. LYON.—Three in the Mid-California.

A. There were three, I think, in the Mid-California machine.

Q. (By Mr. ACKER.) You stated to his Honor that if you had been installing the defendants' machine, and desired to secure an original setting or alignment for the rotating wall member extended

(Testimony of Fred Stebler.)

from one end to the other, you would not have employed slotted brackets, but would have employed shims in connection with a solid bracket. Am I correct in that understanding of your testimony?

A. I think that is correct.

Q. Now, if you employ shims and should remove one shim and insert a thinner one in place of it, what would be the effect on that bracket?

A. The effect, of course, would be to change the location of the bracket, the difference in the thickness of the shims. [561]

Q. Now, do I understand you to convey to the Court that if the defendant had employed shims for securing the initial adjustment of the roller section members at various points throughout the length of the runway, it would not, in your opinion, have been the equivalent to the use of a slotted bracket for securing an initial setting?

A. Why, it would have been equivalent—certainly, it would have been equivalent, so far as acquiring the purpose for which he was intending it.

Q. To that extent one would be equivalent to the other. A. Yes, sir.

Q. And the reason you would have used shims was due to the fact, in your opinion, it would have made a cheaper form of installation?

A. I do think it would have been cheaper, yes.

Q. You would not have considered the use of shims to be an adjustable means for a bracket for the original setting?

A. No; not so far as the adjustment of the rollers

(Testimony of Fred Stebler.)

is concerned. In other words, after once—

Q. And you would not—

Mr. LYON.—Let him finish the answer.

Mr. ACKER.—Did I interfere with your answer?  
I didn't mean to.

A. In other words, after you obtain your permanent [562] alignment, in that case, the further adjustment is not required or necessary.

Q. (By Mr. ACKER.) A further adjustment would not be required in connection with any installation where you wished to secure and obtain a permanent alignment, would it?

A. Unless the adjustment by accident, or some other means, became changed.

Q. Yes; through accident or something of that kind. A. Yes, sir.

Q. When so changed it would not be in the condition in which it was installed, or position to operate; that is correct, is it not? A. No.

Q. That is, or is it not correct?

A. Well, of course, if it was set for a permanent alignment and became changed, why, it would either be necessary to readjust, or leave it remain in that condition, providing the readjustment were necessary.

The COURT.—Well, we will take a recess for a few minutes.

(Recess.)

Q. (By Mr. ACKER.) On your direct examination yesterday, Mr. Stebler, you stated that you had seen a machine constructed under the Ellithorpe pat-

(Testimony of Fred Stebler.)

ent introduced in evidence on behalf of the defendants and represented by the defendants' model Exhibit "I"? [563]

A. No; I don't think I said I saw a machine constructed on the Ellithorpe patent.

Q. Then, you have no knowledge of a machine constructed under that patent one way or the other?

A. Not constructed under that patent, no.

Q. Well, you testified as to seeing a machine constructed at Orange, and I drew from your testimony that you meant it was an Ellithorpe machine. Do I now understand you to state that you did not mean by that testimony that it was the Ellithorpe machine at Orange?

A. What I stated was I saw a machine down there that I thought in its features showed a construction similar to the construction of a certain illustration of this patent.

Q. Defendants' Exhibit I. Did you see that machine in operation? A. No, sir.

Q. It was in a dismantled condition, I understand.

A. Yes, sir.

Q. Have you in your possession, Mr. Stebler, the model or exhibit which you introduced in evidence in connection with case Equity 2232, which disclosed to the court the construction of the device under the Strain Reissue Patent? A. I think so, yes.

Q. You have had it in your possession?

A. I think so.

Q. That was filed as an exhibit in this court, was it not? [564] A. Yes, sir.



(Testimony of Fred Stebler.)

Mr. ACKER.—If your Honor please, I have looked into the various model rooms for that exhibit, as I wished to introduce it in evidence, and I was unable to find it, and I would like to have the witness produce that exhibit so I can have it before your Honor in the argument of the case.

The COURT.—Ask him to produce it.

Q. (By Mr. ACKER.) Will you produce that model, Mr. Stebler?

A. I will if I can.

Q. You removed it from the court? A. No, sir.

Q. Did you have it removed? A. No, sir.

Q. Did anyone remove it from the court and send it to you? A. Apparently they did.

Q. And you have it in your possession?

A. Yes.

Q. I will ask that model be shipped over to the court. That is all.

Mr. LYON.—The exhibits were ordered withdrawn, and those were shipped to Mr. Stebler by the clerk.

Mr. ACKER.—I don't mean to insinuate that there was anything wrong.

Mr. LYON.—If we can find it, you will certainly have it at the next adjournment. [565]

Mr. ACKER.—That is all.

Redirect Examination.

(By Mr. LYON.)

Q. Mr. Stebler, on cross-examination your attention was directed to Plaintiff's Exhibit No. 3, the Thomas Strain patent, and to the part 36-B, and also

(Testimony of Fred Stebler.)

you were asked with regard to the use of obstructions for causing the fruit to roll off of the distributing belt. Compare this function of the Thomas Strain apparatus, as illustrated in that patent, with the function and mode of operation of your distributing apparatus, Plaintiff's Exhibit No. 2.

Mr. ACKER.—If your Honor please, I submit that the witness stated that he had no remembrance of seeing such a device, and I don't see, if he has no knowledge of the device, how he can compare it as to function and operation, and I submit the patent is the best evidence of what is disclosed thereby, and what function is performed by those parts.

The COURT.—Well, I will tell you, Mr. Acker—

Mr. ACKER.—Pardon me, your Honor.

The COURT.—I say, I don't understand this Exhibit 3. I don't understand how it works. I have been studying the thing and I don't see how this—

Mr. ACKER.—It would have been a better proposition if counsel had supplied us with a model. It would have been a much better proposition. I had the same purpose in mind, [566] perhaps, that Mr. Lyon had, when I started to examine the witness, but as he said he knew nothing about the operation and had not seen them in operation, I don't see how he can examine the witness regarding it.

Mr. LYON.—The only proposition in that connection that I wanted to clear up, counsel has left an intimation that there was a similarity of the—a total similarity of this Thomas Strain patent with the Stebler distributing apparatus, and I wanted Mr.

(Testimony of Fred Stebler.)

Stebler to explain the differences.

The COURT.—Well, I will let you ask him a leading question, Mr. Lyon, to get right at it.

Q. (By Mr. LYON.) Now, referring to the part 36-B in Plaintiff's Exhibit 3—

The COURT.—Figure what?

Mr. LYON.—(Continuing) —figure 11, sheet 1 of the drawings, tell us how that operates in this Strain construction.

Mr. ACKER.—If he knows.

A. In order to comprehend the function and operation of this device as shown in this drawing, I think we should also refer to figure 3 of the same sheet, which is an enlarged or plan view of the whole machine showing these devices placed thereon at either side. This figure 3 also shows some reference numeral 36-B, it being understood that when we look at this drawing from this view, the [567] fruit enters the machine from the lefthand end, and is introduced there immediately onto the belt, or conveyor, and comes in contact with the revolving or grading rod, so to speak, which is mounted directly above the belt. The fruit enters from this end—(indicating on the patent to the court) immediately it lands on the belt here and is conveyed along here. This is the grading rod right through here. It will be noted that the upper end 36-B projects directly under the grading rod. In other words, it runs up here in this direction. Now, 36-B is an adjustable bar carried on a rod.

Q. (By Mr. LYON.) 36-A.

(Testimony of Fred Stebler.)

A. 36-A is an adjustable set screw. This rod is attached to the bed plate of the gateway over which this belt travels, this being the belt as I marked X on figure 11, and moves in the direction of the arrow that I have marked thereon. Now, then, the fruit as it egresses from the gradeway under this grading rod goes down over the surface of the plate, comes in contact with the lower extension of the guard 36, it being presumed that there is a flat place at the lower edge of this belt, which if true, the fruit could not roll off as it comes to the end of this guard, but would remain on this belt, but would require something to remove it. In other words, throw it off—sheared off, as we call it; that is what the function of this 36-B is, to remove the fruit from this belt. [568]

Q. Now, then, wherein does the function of this apparatus differ from that of the defendants' device at Porterville, and that of your patent, Plaintiff's Exhibit 2, and what difference does that function make in the practical operation of the distributing apparatus?

A. Read me the question, please.

(Last question read by the reporter.)

A. By this apparatus, I take it you mean that shown in the drawing of the Thomas Strain grader, which differs both from the apparatus of the defendants and that of my own, as shown in our exhibit No. 2 in this way: That it is apparent that this 36-B or this device 36-B shown in Figure 11, and also Figure 3, sheet 1 of the Thomas Strain patent, is to remove the fruit from the belt, in a sense, forcibly;

(Testimony of Fred Stebler.)

in other words, to eject it from the belt; whereas, in both of the defendants' machine and in my own, there is no ejecting device. We don't perform the function of ejecting the fruit at all; there is no means for that other than gravity, by way of explanation of which, should be noted that in both my machine and in the defendants' machine, the fruit rides on the belt, bearing against the upper side of the guide. In other words, the inclination of the belt keeps the fruit bearing against this guideway. There is no place on this belt in either of these machines that is flat along the edges.

Q. (By the COURT.) That is, your machine or Parker's machine? [569]

A. Yes, sir. In other words, there is continual inclination of the belt.

Q. In the Strain machine there is a tilt in the belt that makes the lower end of it flat?

A. Flat, which requires something to eject the fruit. In our machine, with this—on account of this continuation of the inclination, the fruit needs nothing to eject it. In other words, the continuation of the guide, as we use it, is to keep the fruit on the guide to the intended point at which it is intended to come off. [570] When it arrives at this point, it rolls off itself. In other words, when it arrives at the termination of this guideway, it simply rolls off into the bin.

Q. (By Mr. LYON.) Now, in this Thomas Strain patent, Plaintiff's Exhibit 3, or in the Strain grader as you saw it in his packing-house at Fullerton, the



(Testimony of Fred Stebler.)

bins are not adjustable, in other words, to the grade-way or the distributing portion of the machine at all, are they?

A. I didn't catch the forepart of the question.

(Last question read by the reporter.)

A. There is nothing in the patent to show that the bins are adjustable, and as I recall it, in fact, I am certain in my recollection of this machine, that the bins in that case were not adjustable longitudinally of the machine; they were adjustable vertically. The bottoms of them were adjustable vertically up and down; as they were filled, they were lowered.

Q. (By the COURT.) What machine is that?

A. That is the Thomas Strain machine, of which this drawing is supposed to be a reproduction.

Mr. ACKER.—You are now speaking of the machine which you say you examined of Mr. Strain in 1903 or '04?

A. Yes, sir.

Mr. LYON.—That is all. [571]

Recross-examination.

(By Mr. ACKER.)

Q. Have you a copy of the Stebler patent before you, Mr. Stebler, Complainant's Exhibit 2? (Handing copy of the patent to witness.) How many rollers have you employed in connection with the machines which you installed under the Stebler patent, Complainant's Exhibit 2, and which constitute the one member of the fruit runway?

A. Read the question, please.

(Last question read by the reporter.)

(Testimony of Fred Stebler.)

Mr. LYON.—I object to that as not recross; he has already asked that same question on cross-examination.

Mr. ACKER.—This is leading up to your question which you just asked, Mr. Lyon.

The COURT.—Well, I will overrule the objection to see what it is about.

A. You wish to know how many roller sections there are end-to-end?

Q. (By Mr. ACKER.) How many rollers do you employ, or roller sections, from end to end?

A. Ordinarily, ten.

Q. And does the tenth section constitute a sizing roller? A. Not always.

Q. I am asking you now as you install them?

A. Sometimes it does.

Q. We will say then we will start with the ninth one. [572] Now, with the patent before you, explain to us how the fruit is conveyed from the aperture leading from the ninth roller into the fruit receiving bin employed in your machine for the reception of that size of the sized fruit?

A. That ninth roller would be in the position of the numeral figure 14 in that drawing. Is that what you mean? In figure 14 of sheet 1.

Q. Of 14? A. Now, what is your question.

Q. I want to know how the fruit coming from that roller for that size fruit is delivered into the bin of your apparatus which is placed to receive this fruit for that size?

A. Why, it is delivered down the guideway.

(Testimony of Fred Stebler.)

Q. Down the inclined chutes? A. Yes, sir.

Q. And carried over to this bin next to the last?

A. Next to the last bin.

Q. Now, if you didn't employ—

A. Wait a minute. Yes, that is right.

The COURT.—Well, if you will let me interrupt there. It may be put in that bin, or in any other bin, by changing those things?

Mr. ACKER.—No, your Honor, it will not; that is the point I wish to bring out, that it will not in this patent; that is the point I have been trying to make clear to your Honor [573] throughout this case, that without the use of these diagonally inclined chutes, the fruit that is sized in that machine will not go into the receptive bins designed to receive it.

The COURT.—Is that right?

A. That is right.

Q. (By Mr. ACKER.) Now, in the defendants' device, how does the fruit, we will say, for the ninth size which goes through that aperture, go into the bin for the reception of that fruit, we will say the ninth bin?

A. It depends upon where the bin is located for it.

Q. Where are the bins exactly located in the defendants' machine, if you know from your own knowledge?

A. The bins—the bin compartments, of course, are located at the side of the gradeways.

Q. Now, isn't it a fact, Mr. Stebler, that the fruit flows by gravity directly into that bin without any guiding chutes for guiding it diagonally across the

(Testimony of Fred Stebler.)

belt?     A. Not always.

Q. Are you speaking from your experience with the defendants' machine, as in operation?

A. I saw the machine in operation, yes, sir.

Q. Where and when?

A. I saw it in operation both in the Porterville Citrus Association at Porterville, and the Mid-California Citrus Association Porterville house in the first week in May.

Q. That was after the visit made to those packing-houses, [574] by his Honor, Judge Trippett?

A. Yes, sir.

Mr. ACKER.—That is all, Mr. Stebler.

Redirect Examination.

(By Mr. LYON.)

Q. Now, Mr. Stebler, in regard to this same bin arrangement of Plaintiff's Exhibit No. 2, the ninth size, as just referred to by you, and the bin therefor, it is a fact that that may be adjusted anywhere practically the length of the runway, isn't it?

A. Certainly, by adjusting the bins and the guideway for it.

Q. And that is the very purpose for the interrelation of the adjustable bin partitions and the adjustable guides on the distributing belt?

A. Certainly.

Q. And that is true of the defendants' machine in that respect?

A. Why, it can be made true without any question.

Q. By the use of the so-called barriers or deflectors in proper position?     A. Yes, sir.

(Testimony of Fred Stebler.)

Mr. LYON.—That is all. [575]

Recross-examination.

(By Mr. ACKER.)

Q. Just one question in order that this record may be clear: I understood you to state that in the Tom Strain device which you saw in operation in 1904, and as disclosed by the patent, Complainant's Exhibit 3, that a longitudinally adjustable device was employed merely to shunt or deflect the fruit off of the belt?

A. That is my judgment.

Q. Is that not the same function which is performed in your apparatus, that the inclined chutes deflect the fruit diagonally, and at an inclination from the traveling belt, and from off of the same?

A. No, sir.

Q. Why not?

A. Simply because—due to the inclination of this conveyor, just as soon as the fruit comes to the end of one of these guideways it rolls off unless there is something in the way of it.

Q. But it runs off into its proper bin by being directed and deflected by these inclined chutes?

A. Directed by not exactly deflected.

Mr. ACKER.—That is all.

Mr. LYON.—That is all. Plaintiff rests unless the Court desires, as intimated yesterday, to inspect this machine.

The COURT.—Is there any further testimony?  
[576]

Mr. LYON.—No.

The COURT.—Now, I am inclined to allow very



full argument in this case. I am inclined to think—I want to tell you, gentlemen, the most important thing to me, it seems to me, to understand these machines and the relation they bear to the prior art, there may be questions of law that will arise that are difficult to see. I am inclined to think it would do me good if I saw another packing-house, and one of these Parker machines and the Stebler machines as it stands. I am inclined to think it would aid in the understanding of the machines. This question of whether one machine is an infringement of another is undoubtedly sometimes a very difficult thing to decide, the thing about which all men will differ. I don't know as the word "all men," but they might differ. Mechanics differ as to whether or not one is an infringement, and whether the mechanisms are the mechanical equivalents, and judges differ. I think a judge that decides a case of this kind ought to certainly understand the facts to start out with, and while I may apprehend I understand this, I may not. I am inclined to think it would do me good to see these machines again. I suppose that the claims in these patents have got to be read and discussed and applied to the machine. Well, now, ordinarily a claim in a patent, the wording of a claim in a patent don't mean much, unless you have got it in your mind how its wording is to be applied. Now, I pick up a patent here at random, say— [577] (Reading from a patent.) Now if a man knew nothing about these machines at all were to pick that up, he would say, what in the world does this mean; he couldn't comprehend it at all. It is only when

you get the language and apply it to the machine itself you begin to see what the language means. That is the way it occurs to me, and I get more from photographs than I do from drawings, and I get more from seeing the machine than I do from the photographs, in the application of these claims to the machine. Now, I will fix the argument three hours and a half on a side; that is practically two days. The Court necessarily always has some other business to transact.

(Informal discussion.)

The COURT.—I will take up Tuesday and Wednesday for the argument of this case.

(Whereupon an adjournment was taken until Tuesday, July 18th, 1916, at 10:00 A. M.) [578]

**Complainant's Exhibit No. 1—Letters Patent of  
Robert Strain for Improvement in Fruit  
Grader.**

Entered

B. 6, P. 539.

Townsend Bros.

**REISSUE**

No.

**12,297.**

**THE UNITED STATES OF AMERICA,**  
To All to Whom These Presents Shall Come:

WHEREAS Robert Strain of Fullerton California, assignor to Fred Stebler and Austin A. Gamble of Riverside, California, has presented to the Commissioner of Patents a Petition praying for the Reissue of Letters Patent for an alleged new and useful improvement in

Fruit Graders

For which Letters Patent were issued to said assignees dated June 9, 1903, which letters having been surrendered the same have been canceled and new letters ordered to issue to them on an amended specification.

A description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of Law in such cases made and provided, and

WHEREAS upon due examination made the said Claimant is adjudged to be justly entitled to a patent under the Law.

Now therefore these LETTERS PATENT are to grant unto the said Fred Stebler and Austin A. Gamble, their heirs or assigns, for the unexpired part of the term of Seventeen years from the ninth day of June, one thousand nine hundred and three, the exclusive right to make, use and vend the said invention throughout the United States and the Territories thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this twenty-seventh day of December, in the year of our Lord one thousand nine hundred and four, and [579] of the Independence of the United States of America, the one hundred and twenty-ninth.

[Seal]

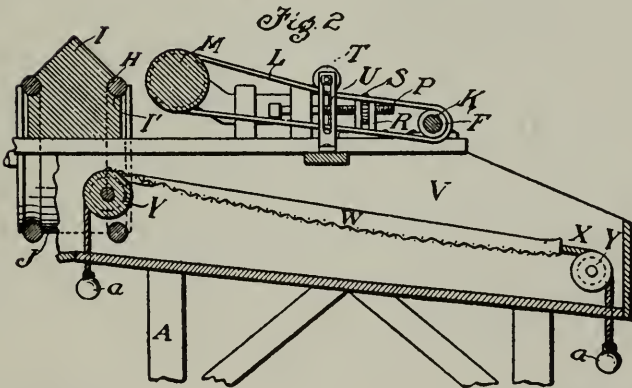
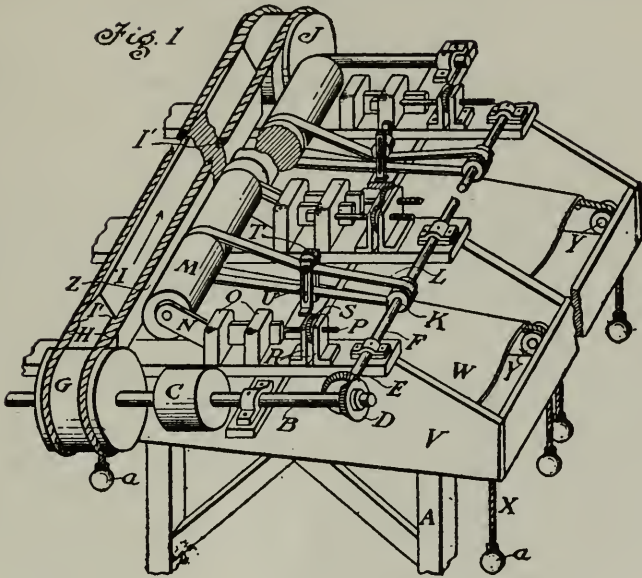
E. B. MOORE,  
Acting Commissioner of Patents.

[Endorsed]: 207. N. D. Stebler v. Pioneer Fruit Co. Plaintiff's Exhibit "A." Filed June 28th, 1911. Wm. M. Van Dyke, Clerk. Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Compls. Exhibit No. 1. Filed July 11, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. Filed Sept. 12, 1912. Wm. M. Van Dyke, Clerk. By ———, Deputy Clerk. [580]

No. 12,297.

REISSUED DEC. 27, 1904.

R. STRAIN.  
FRUIT GRADER.  
APPLICATION FILED OCT. 21, 1903.



Witnesses:

*William F. H.*  
*Frederick S. H.*

Inventor:

*Robert Strain*  
*by Townsend Bros.*  
*Attys*



No. 12,297.

Reissued December 27, 1904.

## UNITED STATES PATENT OFFICE.

ROBERT STRAIN, OF FULLERTON, CALIFORNIA, ASSIGNOR TO FRED STEBLER AND AUSTIN A. GAMBLE, OF RIVERSIDE, CALIFORNIA.

## FRUIT-GRADER.

SPECIFICATION forming part of Reissued Letters Patent No. 12,297, dated December 27, 1904.

Original No. 730,412, dated June 9, 1903. Application for reissue filed October 21, 1903. Serial No. 177,990.

To all whom it may concern:

Be it known that I, ROBERT STRAIN, a citizen of the United States, residing at Fullerton, in the county of Orange and State of California, have invented new and useful Improvements in Graders, of which the following is a specification.

My invention relates to that class of graders designed to assort fruits, vegetables, such as potatoes, and nuts into lots of different sizes; and the objects thereof are to provide a machine for that purpose which is adjustable to a number of grades and which will prevent the fruit from bruising or being crushed. I accomplish these objects by the machine described herein and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a fragment of my machine arranged for grading oranges or lemons. Fig. 2 is a cross-section.

In the drawings my machine is designed as a double grader—that is, two graders arranged side by side on the same frame, one side being a duplicate of the other side.

1. A represents the frame of the machine, on the top of which at one end of the machine, preferably at the upper end, is transversely mounted the driving-shaft B, carrying the driving-pulley C, by means of which motion is imparted thereto. When arranged as a double grader, on each end of the driving-shaft is rigidly mounted driving bevel-gears D, which mesh with driven bevel-gears E, rigidly mounted on the longitudinally-extending driven shaft F. On the driving-shaft is rigidly mounted the rope-driving drum G, which imparts motion to ropes H, which travel in the direction indicated by the arrow in Fig. 1 that is, from head to the foot thereof in grooves I' in guide I, which forms one side of the fruit-runway. These ropes pass over pulley J at the lower end of the machine. On the driven shafts F are rigidly mounted a number of driving-pulleys K, which drive belts L, that pass around the grading-rollers M, which are revolvably mounted in adjusting arms N, which have a longitudinal movement in guide-blocks O, affixed to the top of the frame. To each of these adjusting-arms

is affixed a threaded bolt P, which passes through two stop-blocks R, between which is an adjusting-nut S on bolt P in threaded contact therewith, by the rotation of which the grade-rollers are moved toward or from the guide. Affixed to the top of the frame are band-tighteners to tighten the bands when the grade-rollers are moved away from the guide. These band-tighteners are formed of a pulley T, adjustably mounted in slotted uprights U, affixed to the frame. Below the grade-rollers are as many bins V as there are grade-rollers, which are adapted to hold the fruit which will pass between the grade-roller and the guide. In order to prevent the fruit from being bruised, in each bin is mounted an apron W, of strong cloth, the inner end of which is higher than the outer, so that the fruit will roll to the outer end of the bin, where it has but a short distance to fall to reach the bottom of the bin. Each edge of these aprons is fastened to a rope X, which passes over small pulleys Y, affixed to the side of the bin, and each end thereof has a weight a to hold the apron taut and to keep it in position. In the operation of my machine the first roller, or that nearest to the shaft B, is adjusted so as to permit the smallest grade of fruit to pass between the roller and the guide. The next roller is adjusted for the next larger grade, and so on for each successive grade. In orange-grading there are usually nine grades. Motion is imparted to the driving-shaft to cause a rope H to travel in a groove I' in guide I in the direction indicated by the arrow. This causes the grade-rollers to revolve so that the top of the roller travels away from the guide. The fruit is fed into the runway between the guide and the grade-rollers by any suitable device (not shown) in the usual manner.

It will be observed that as the grade-rollers are adjustable the distance between the roller and guide can be made small or large to adapt the machine to grading small nuts or fruits or large nuts or large fruits. It will also be observed that the ropes carry the fruit toward the lower end of the machine and at the same time the grade-rollers are revolving, so as to

keep the fruit sticking in the runway, thereby avoiding any tendency to crush the most delicate fruit. It will also be observed that the inner end of the apron gives a soft yielding surface for the fruit to fall upon a short distance below the roller, thus preventing any danger of its bruising. As the fruit rolls to the outer end of the apron it falls onto the bottom of the bin, and as the end fills up the apron can be moved toward the inner end of the bin, the weights providing for such adjustment. The fruit is packed from the outer end of the bin. By having short grade-rollers separately adjustable very fine grading may be done and more than one roller may be adjusted to the same grade, if desired. If there should be a large quantity of the fruit of a single grade intermixed with a small quantity of fruit of different grades, this feature is very desirable, as a number of bins may be filled with fruit of the same grade.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fruit-grader, in combination a plurality of independent transversely-adjustable rotating rollers; a nonmovable grooved guide lying parallel with the plane which passes vertically and longitudinally through the center of said rollers, said rollers and guide forming a fruit-runway; a rope in the groove in said guide and means to move said rope.

2. In a fruit-grader having a bin means to break the fall of the fruit from the grading-way comprising a yielding soft apron above the bottom of the bin and extending under the grading-way, said apron having the end thereof under the grading-way at a higher elevation than the other end; the lower end extending to near the outer side of the bin.

3. In a fruit-grader, a grooved longitudinal guide; a rope in said groove; means to impart movement to said rope; one or more rollers lying parallel to said guide revolubly mounted in arms transversely adjustable; means to adjust said arms comprising a threaded bolt passing through two stop-blocks; a nut on said bolt in threaded contact therewith between said stop-blocks; and means to revolve each of said rollers comprising a belt passing around said roller and a pulley mounted on a shaft; and means to impart motion to said shaft.

4. In a fruit-sizing machine, a runway for the fruit comprising cooperating parallel members, one of said members consisting of a series of rolls arranged end to end and disposed progressively at different distances from the other member, forming communicating fruit-discharging apertures of progressively-different widths along the length of the runway, means for adjusting each roll independently to vary the size of the aperture formed thereby, and means for driving the rolls, substantially as described.

5. In a fruit-sizing machine, a supporting-

frame, a runway for the fruit comprising cooperating parallel members, one of said members consisting of a series of rolls arranged end to end and disposed progressively at different distances from the other member, forming communicating fruit-discharging apertures of progressively-different widths along the length of the runway, brackets carrying the rolls, means mounted upon the frame for moving each bracket and adjusting each roll independently to vary the size of the aperture formed thereby, and means for driving the rolls, substantially as described.

6. In a fruit-sizing machine, the combination with a supporting-frame, of a fruit-runway formed by a relatively stationary member and a longitudinal series of rolls arranged end to end at different distances from said stationary member, thus providing communicating spaces of progressively-varying sizes for the discharge of the fruit, means for independently adjusting the rolls with relation to said stationary member, means for driving the rolls, and means for positively feeding the fruit along the runway, substantially as set forth.

7. In a fruit-grading machine, the combination with a supporting-frame, of a fruit-runway comprising a relatively stationary member and a series of rolls disposed in parallel relation to said member and arranged end to end at different distances from the stationary member, forming communicating passages of progressively-varying sizes along the runway for the discharge of the fruit, means for adjusting the rolls with relation to the stationary member, means for driving said rolls, and a traveling belt moving in parallel relation to the stationary member and rolls for positively feeding the fruit along the runway, substantially as described.

8. In a fruit-grading machine, the combination with a supporting-frame, of a central longitudinal divider, forming one side of each of two parallel runways, a series of rolls disposed on each side of the divider and arranged end to end at different distances from the divider, forming therewith a runway having progressively-varying discharge-spaces for the fruit, means for adjusting the rolls of each series toward and from the common divider, means for driving the rolls, and belts disposed on opposite sides of the divider for positively feeding the fruit along the runways, substantially as described.

9. In a fruit-sizing machine, the combination with a supporting-frame, of a longitudinal shaft, transverse shafts, one of which is adapted to be driven from a suitable source of power, a runway comprising a relatively stationary member and an adjustable member consisting of a series of rolls arranged parallel therewith and disposed end to end and at different distances from the stationary member, means for independently adjusting the

rolls with relation to the stationary member, means for driving the rolls from the longitudinal shaft, and a belt connected with the transverse shafts for positively feeding the  
5 fruit along the runway, substantially as set forth.

10 In a fruit-grading machine, a runway formed of two parallel members, one of said members consisting of a series of end-to-end  
10 rolls, brackets carrying the rolls, guides for the brackets, and means for adjusting the

brackets upon the guides, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, at Los Angeles, in the county of Los Angeles, State of California, this 14th day of October, 1903.

ROBT. STRAIN.

Witnesses:

FREDERICK S. LYON,  
F. M. TOWNSEND.

**Complainant's Exhibit No. 2—Letters Patent of F.  
Stebler for Distributing Apparatus. '**

[Endorsed]: Stebler vs. Porterville C. Assn. No. A-44, N. D. Compls. Exhibit No. 2. Filed July 11, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.



F. STEBLER.  
DISTRIBUTING APPARATUS.

APPLICATION FILED MAY 12, 1908.

943,799.

Patented Dec. 21, 1909.

2 SHEETS—SHEET 1.

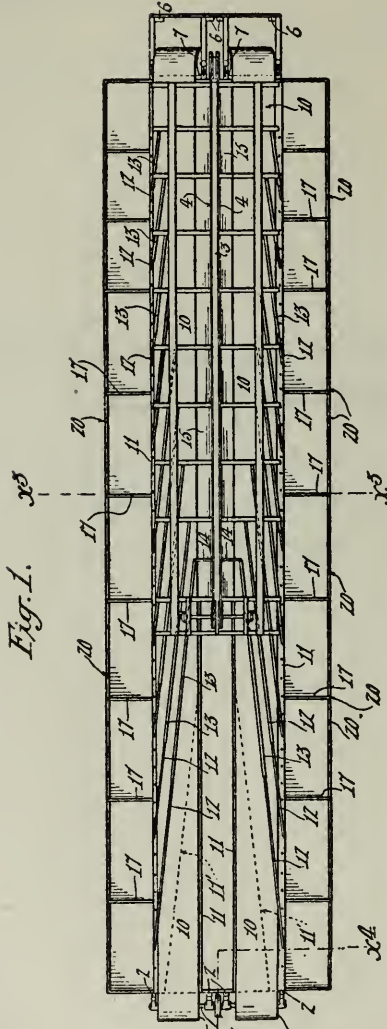
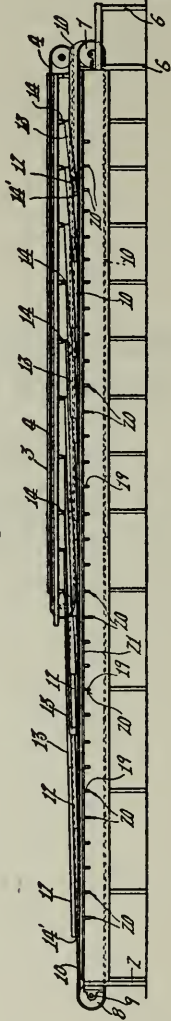


Fig. 2.



Witnesses:  
Frank LaHague  
Louis M. Fritz

Inventor:  
Fred Stebler  
by Townsend Lyon & Hardy  
His atty



F. STEBLER.

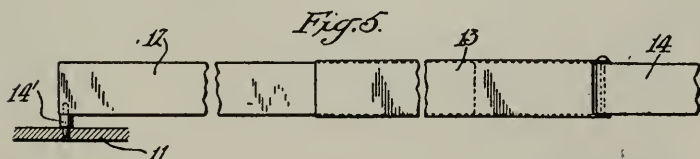
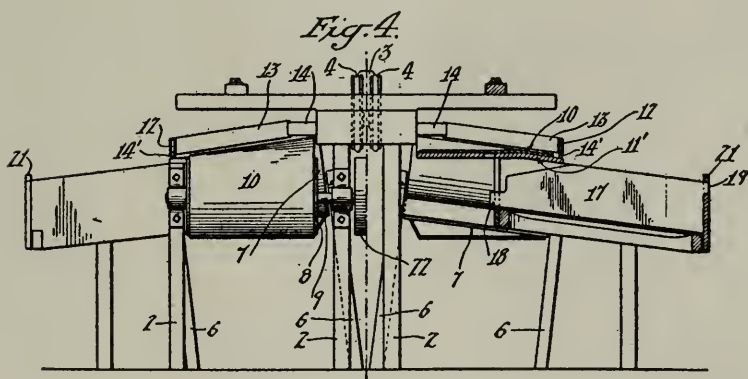
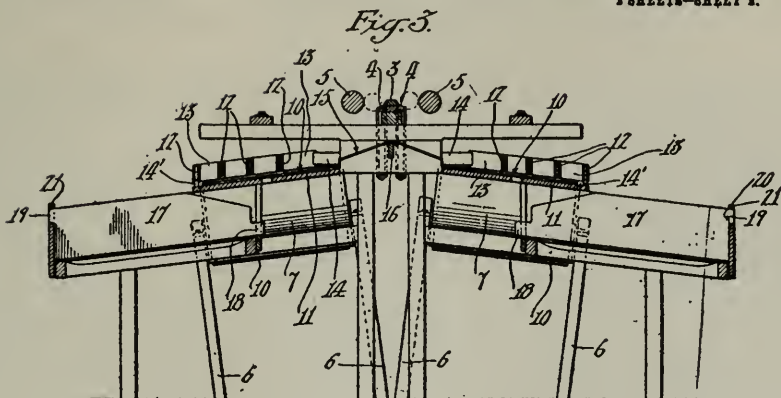
DISTRIBUTING APPARATUS.

APPLICATION FILED MAY 12, 1908.

943,799.

Patented Dec. 21, 1908.

2 SHEETS—SHEET 2.



Witnesses:  
Frank L. Graham  
Gus W. Grady

Inventor:  
Fred Stebler  
by Edmund Lyon Hensley  
His Attorney

## UNITED STATES PATENT OFFICE.

FRED STEBLER, OF RIVERSIDE, CALIFORNIA.  
DISTRIBUTING APPARATUS.

943,799.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed May 12, 1908. Serial No. 432,548.

*To all whom it may concern:*

Be it known that I, FRED STEBLER, a citizen of the United States, residing at Riverside, in the county of Riverside and State of California, have invented a certain new and useful Distributing Apparatus, of which the following is a specification.

This invention relates to means for carrying or distributing fruit, and is more particularly designed for use in connection with a fruit sizer or grader, and has for its general object the provision of simple and efficient means whereby the several grades or sizes of fruits, such, for example, as oranges, may be conducted to wide bins suitably spaced along the floor of a packing house so as to provide sufficient room at the sides of the bins for the fruit packers to work.

Another object of the invention is to provide a suitable distributing apparatus in connection with a short or small grader or sizer, thus enabling the use of a short sizer or grader and still deliver the separated or sized fruit in bins of such width as to provide easy access thereto for the packers.

In packing fruit, such, for instance, as oranges, it is very desirable to have the sized or graded fruit delivered in wide bins, so that two or more packers may work at the side of each bin, as it has been found that where fruit is being separated or graded it is liable to run mainly to two or three different sizes. It is much desired, therefore, to use wide bins which will enable two, or even more, packers to work at the side of a given bin in wrapping the fruit in papers and packing the same in the boxes.

Heretofore it has been necessary either to provide a very large or long fruit grader or sizer, so as to conduct the several grades of fruit some distance along the grader before being discharged into the bins, or to utilize smaller bins. With this invention it is possible to use a relatively short grader or sizer and utilize a distributing conveyer, and to carry the separated and sized fruit to bins of the desired width extended much beyond the length of the grader and arranged at the sides of the conveyer.

With these and such other objects in view as shall appear from the hereinafter contained description of the apparatus and its operation, the invention consists in the provision, in connection with a fruit sizer or grader such, for example, as the "Califor-

nia grader" of Letters Patent of the United States to James Ish No. 458,422, dated August 25, 1891, or any other suitable grader, of a horizontally traveling conveyer so arranged that the conveyer is tilted sidewise so as to extend slightly downward from the side of the grading or sizing machine, and in the provision, in connection with such conveyer, of guiding means arranged along the conveyer and in suitable relation to the several grading discharges of the separating means as to form ways through which the separated fruit is carried by said conveyer and thereby delivered to suitable bins arranged below and along such conveyer.

The invention consists further in the provision of means whereby such guiding means may be adjusted to deliver the given grade or size of fruit, either to any particular portion of the bin or to any one of several successive bins, so that in case the fruit being sized or graded runs very heavily of a given size or grade, such fruit may be delivered into a series of bins, thus enabling a large number of packers to have ready access to that size or grade of fruit and handle the fruit and pack the same as rapidly as graded or sized.

A further object of the invention is to provide in connection with such fruit grader or sizer, and such conveyer and guiding means, removable and adjustable partitions in the bins so that the width thereof may be varied to suit the requirements.

By thus providing bins whose longitudinal extension may be adjusted with respect to the longitudinal extension of the conveyer of the distributing apparatus, it is possible to provide the necessary bin room for all of the different sizes or grades of the fruit regardless of the run of the fruit. In packing oranges it is often found that the run of the fruit is particularly heavy to one or two given grades or sizes and it is essential in practical use to be able to provide sufficient bin room for the sizes or grades of which there are the greatest number of oranges in a given run. This has been found to be one of the great difficulties which have heretofore existed with all apparatus where machinery has been used in sizing or grading oranges, and it is one of the important objects of this invention to provide means which will accomplish this result without interfering with the grading or

943,799

sizing and at the same time permit the compact installation of the machinery and the ready access to the bin room by the packers.

Further objects and ends to be attained will be apparent from the construction and operation of my distributing apparatus as hereinafter described and shown in the drawings, wherein I have shown one embodiment of the invention, it being apparent that many modifications may be made without departing from the spirit or scope of the invention.

The invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which—

Figure 1 is a plan view of a distributing apparatus embodying my invention, the same being shown in connection with a double or two sided fruit grader or sizer, the fruit grader or sizer indicated in the drawings being the well known "California grader," the main features and principles of which are set forth in the Ish patent No. 458,422 before referred to, but, as indicated, instead of a flat belt, a round rope belt traveling in a groove is shown as the same has ordinarily been used in such California grader; and the apparatus being duplicated to discharge fruit on both sides of such double grader. Fig. 2 is a side elevation of such apparatus. Fig. 3 is a cross sectional view on the line  $x^3-x^3$  Fig. 1. Fig. 4 is a cross sectional view on the line  $x^4-x^4$  Fig. 1. Fig. 5 is an enlarged, detail view of one of the guiding means, showing the telescopic construction thereof and manner of pivoting the same upon the supports thereof on the frame of the machine.

In the preferred form of the invention and in the embodiment shown in the drawings, the fruit grader or grading is mounted upon suitable standards 2 in the ordinary or any preferred manner, and such fruit grader is made up of a longitudinal divider 3 provided with a groove in which the grading belt or rope 4 travels. 5 (Fig. 3) indicates the grading roller. The construction of this longitudinal divider, grading rope and grading roller is commonly known in the art and is illustrated in patent to Robert Strain No. 730,412 of June 9, 1903, and I have, therefore, considered it not essential to more fully illustrate the same in the drawings herein. Said grading element is adjusted to deliver or discharge fruit of different grades at different longitudinal portions thereof.

As indicated, the grading rope 4 is carried by suitable sheaves suitably mounted and driven. As shown in the drawings, two grading ropes and two grading rollers 5 are shown in the drawings, thus forming a double or two sided machine. As each side, however, is simply a duplicate of the other,

I will describe only one of the two fruit distributing apparatus, the other being a duplicate. The fruit distributing means comprises supporting and guiding means, namely, the conveyer 10, and guide means 12, 13, arranged alongside of the grading element and adjusted to receive the fruit therefrom and to deliver the same at longitudinally distributed points, for example to a series of bins. The machine is of especial advantage in delivering to a series of bins where longitudinal extension is greater than that of the grading element, thereby giving more room for the packers, and for that purpose the distributing means is constructed so that its delivery portion is of greater longitudinal extension than the grading element. At one end of the frame of the machine I provide suitable standards 6 which, as shown, are mounted at an incline or angle so that the sheave 7 carried thereby is mounted so as to be inclined downwardly away from the grading element. The other end of the machine is provided with a sheave 8 whose axis or shaft 9 is arranged horizontally in suitable bearings in the standards 2 of the frame.

As indicated best in Fig. 1 of the drawings, the longitudinal traveling conveyer or belt 10 is carried along under the grading element at such inclination, i. e., inclined downwardly away from the gradeway formed by the traveling belt and grading roller, but arranged under the same so that the fruit discharged from such gradeway falls onto the inclined traveling conveyer. The upper run of the belt or traveling conveyer 10 is supported throughout the length of the machine by a bed 11 which extends at an angle inclined downwardly from the grading element toward the bins the width of the belt, and at a point beyond the length of the grading element I provide a hip 11' in this bed 11 underneath the traveling conveyer and adapted to bring the conveyer down into a horizontal position so that the belt or conveyer is delivered upon the sheave or pulley 8 in a horizontal position crosswise of the belt, thus providing for the belt traveling upon the sheaves 7 and 8 and preventing the same running off therefrom. At distances along the frame of the apparatus, corresponding to the several grades or sizes of fruit arranged to be discharged from the grading element, I provide a series of guiding means preferably made up in two sections 12, 13, the section 13 being pivotally mounted upon suitable bars or studs 14 of the frame of the machine. The section 13 is preferably of such form as to receive within it the section 12 so that the section 12 may be drawn out or pushed back within the section 13 so as to bring the end of the guiding means at any point along the bin to which it is desired to deliver the



given grade of fruit. The front end of the section 12 of such guiding means is provided with a socket in which a suitable pin 14' may be placed, such pin being also inserted  
5 in one of the holes 15 along the edge of the bed 11. It is thus seen that by extending or contracting the telescopic guiding means, the point of delivery of the fruit from the belt may be adjusted as desired. In general, when  
10 the series of bins is longer than the grading element, the guides 12, 13 will diverge outwardly and will all be directed obliquely forward and outward. Underneath the grading element I arrange a canvas 15 upon  
15 which the fruit from the grading element is adapted to drop or be delivered and by which such fruit is directed onto the traveling conveyer 10. Where a double grader is used, this canvas preferably extends from  
20 a point at the inner edges of the traveling conveyers 10 over a suitable support 16 arranged below the longitudinal divider 3. Underneath the apparatus and extending out beyond the sides thereof, I arranged a  
25 suitable frame adapted to receive the usual canvas false bottom. This frame is provided with a series of removable partitions 17 preferably so arranged that the position of the partitions may be varied as desired  
30 to provide fruit receiving bins positioned with respect to the grading element as desired and thus made of adjustable width so that bins for a particular grade may be provided of the size corresponding to the run of the  
35 fruit. As shown in the drawings, these adjustable partitions 17 are provided with portions 18 adapted to be inserted in slots formed in the back wall of the bin frame, there being a suitable number of such back  
40 slots to provide suitable amount of adjustment. The front ends of the partitions 17 are provided with a portion 19 adapted to be inserted in slots 20 on the front wall of the bin frame. Preferably the removable  
45 partitions are held in place by a strip 21 lying upon the front wall of the bin frame and secured in any suitable manner. The conveyers 10 are driven by driving one of the pulleys or sheaves 7, 8 in the ordinary  
50 or any preferred manner such, for instance, as a pulley or sheave 22 from which a belt may pass to any suitable source of power. By thus providing means whereby the longitudinal extension of the bins, with respect  
55 to the conveyer, may be adjusted to suit the run of the fruit, the bin room and the distribution of the sized fruit is wholly within the control of the operator of the apparatus, and it is possible to so deliver the fruit that  
60 immediate and ready access can be had thereto by packers in sufficient number to readily and quickly handle and pack the sized fruit.

In operation the fruit being discharged  
65 from the grading element onto the canvas

15 rolls onto the traveling conveyer between two of the adjustable guiding means which form a trough for the travel of the fruit. As the conveyer is inclined downwardly from the grading element and toward the bins, the longitudinal movement of the belt, assisted by gravity, carries the fruit through such trough and discharges the same at the end of the guiding element. It is readily seen that by this arrangement the fruit may be delivered to any portion of the bin as desired, and wide bins may be used so that a large number of packers may work at any one bin.

It is much preferable to slightly incline the conveyer 10 downward toward the bins. If the conveyer 10 is arranged horizontal and not inclined, the fruit must be forced into contact with the guiding means 12, 13, and this forcible and continuous contact will cause abrasion of the tender skins of fruit, such as oranges, and cause the rapid decay thereof. By inclining the conveyer the downward pitch it utilized to cause the oranges to roll toward the outer or discharge edge of the conveyer preventing the continued forcible contact with the guiding means which would occur were the conveyer flat or horizontal in cross section. When the conveyer is arranged flat the oranges are carried to the guiding means at the rear or most advanced side of the chute thereby formed and the continued movement of the conveyer holds the oranges in forcible contact against such guiding means as the oranges are carried across the width of the belt along the guiding means.

Having described my invention, I claim:—

1. The combination with a fruit grading element constructed to deliver fruit at different longitudinal portions, of traveling, supporting and distributing means extending laterally from the grading element and inclined downwardly away therefrom, the longitudinal extension of the delivery portion of the said distributing means being greater than the longitudinal extension of the grading element.

2. In combination with a grading element constructed to deliver fruit at different longitudinal portions, a distributing apparatus therefor comprising a conveyer traveling longitudinally of the grading element, and guiding means arranged along the conveyer forming chutes to guide the fruit and bins arranged along the length of said conveyer and at the sides thereof.

3. The combination with a grading element adapted to deliver graded fruit at different longitudinal portions of the element, a traveling conveyer extending longitudinally under said grading element and extending beyond the end thereof a series of bins whose longitudinal extension is greater than the longitudinal extension of the grad-

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ing element arranged along the side of said conveyer, and guiding means for guiding the fruit along said conveyer and from the grading element to the series of bins.

4. The combination with a grading element and a series of bins, of a conveyer traveling longitudinally under the grading element and along the side of the series of bins, and guiding means arranged along the conveyer to guide the fruit to the bins, said guiding means diverging toward the bins.

5. In combination with a fruit grader comprising a suitably mounted member and a traveling belt arranged adjacent to said member so as to form the way or chute, for the fruit, a series of bins whose longitudinal extension is greater than the longitudinal extension of the grader, a traveling conveyer arranged under said fruit grader and extending at the side of said series of bins, guiding means for guiding the fruit along said conveyer to said bins, and means for adjusting the longitudinal position of the outer ends of said guiding means, and thereby determine the portion of said bins to which the graded fruit is delivered.

6. A distributing apparatus comprising, in combination with a grading element, a horizontally traveling conveyer inclined downward away from said grading element, bins arranged below and along said conveyer, and guiding means arranged along the conveyer providing chutes for directing fruit to the bins.

7. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt forming the way or chute for the fruit to travel along and thereby be graded by gravity, a traveling conveyer arranged thereunder and of greater length than said grader, a series of bins arranged at the side of said conveyer and means in conjunction with said conveyer for directing the fruit along said conveyer to the respective bins.

8. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming therewith the grading way or chute for the fruit to pass along and be graded by gravity, a traveling conveyer arranged thereunder, a series of bins arranged along the side of said conveyer, an adjustable guiding means arranged along the conveyer and forming a chute for directing the graded fruit from the point of discharge from said conveyer into said bins, said guiding means being adjustable to shift the point of discharge longitudinally of the conveyer.

9. In combination with a grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and

be separated or assorted by gravity, a distributing apparatus for a fruit grader or sizer comprising a horizontally traveling conveyer, a pulley for said conveyer mounted on an inclined axis and a second pulley 70 mounted on a horizontal axis, the conveyer being extended between and passing over said pulleys, a bed supporting the upper run of said conveyer and provided with a hip over which conveyer travels as it approaches 75 said horizontal pulley, and guiding means arranged along the conveyer forming chutes for the fruit.

10. The combination with a fruit grading element and a series of bins, of a distributing 80 apparatus therefor, comprising a horizontally traveling conveyer, a pulley for said conveyer mounted on an inclined axis and a second pulley mounted on a horizontal axis, the conveyer being extended between and 85 passing over said pulleys, a bed supporting the upper run of said conveyer and provided with a hip over which conveyer travels as it approaches said horizontal pulley, and guiding means arranged along the con- 90 veyer forming chutes for the fruit.

11. The combination of a fruit grading element and a series of bins, the walls of said bins being adjustable longitudinally of the series, and a distributing apparatus com- 95 prising a conveyer traveling longitudinally between the fruit grading element and the bins, and guide means arranged along the conveyer and forming chutes for guiding the fruit from said conveyer to said bins, said 100 guide means being adjustable to shift the longitudinal position of their outer ends in accordance with the longitudinal positions of the walls of the bins.

12. In combination with a fruit grader 105 comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and be separated or assorted by gravity, 110 a distributing apparatus comprising fruit supporting means outwardly and downwardly inclined from one side to the other, and guide means extending obliquely across the supporting means, each guide 115 means comprising telescoping members.

13. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction there- 120 with the way, or chute, for the fruit to pass along and be separated or assorted by gravity, a distributing apparatus comprising fruit supporting means outwardly and downwardly inclined from one side to the 125 other, guide means extending obliquely across the supporting means, each guide means comprising telescoping members, and means for adjusting the longitudinal position of the outer ends of said members. 130



14. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming a grading way or chute for the fruit to pass along and be separated or assorted by gravity a series of bins, a distributing apparatus therefor comprising a conveyer traveling longitudinally of the grading element and guiding means arranged along the conveyer forming chutes to guide the fruit to said bins.

15. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming a grading way or chute for the fruit to pass along and be separated or assorted by gravity, of traveling separating and distributing means extending under said fruit grader and inclined downward away therefrom, the longitudinal extension of the delivery portion of said distributing means being greater than the longitudinal extension of said grader, and a series of bins arranged along said distributing means.

16. In combination, a grading element and a distributing apparatus therefor, and bins arranged at the side of the distributing apparatus, said distributing apparatus comprising a conveyer traveling horizontally and longitudinally of the grading element and under the same, guiding means extending transversely of the conveyer and forming separated chutes for the fruit and opening into respective bins.

17. A grading element and fruit bins, in combination with a conveyer of greater length than the grading element and extending alongside said fruit bins, and guiding means, on the surface of said conveyer and forming separated chutes for the separated and sized fruit, extending transversely of the conveyer.

18. In combination, a grading element and a distributing apparatus therefor, bins arranged at the side of the distributing apparatus, said bins provided with movable partitions whereby the widths of the bins along the distributing apparatus may be adjusted, said distributing apparatus comprising a conveyer traveling horizontally and longitudinally of the grading element and under the same, and guiding means extending transversely of the conveyer and forming separated chutes for the fruit and opening into respective bins.

19. A grading element, in combination with a distributing apparatus comprising a horizontally traveling conveyer inclined downward away from said grading element, guiding means arranged along the conveyer providing separated chutes for directing the fruit, and bins arranged below and along side said conveyer, said bins provided with movable partitions whereby the width of the bins may be adjusted with respect to the longitudinal extension of said conveyer.

20. The combination with a grading element and a series of bins, of a conveyer traveling longitudinally under the grading element and along the side of the series of bins, and adjustable guiding means arranged along the conveyer to guide the fruit to the bins, said guiding means diverging toward the bins, said bins provided with movable partitions whereby the longitudinal extension of the respective bins may be adjusted with relation to the length of the conveyer.

In testimony whereof, I have hereunto set my hand at Riverside, California, this sixth day of May 1908.

FRED STEBLER.

In presence of—

DORA V. GAMBLE,

FREDERICK J. LYON.

**Complainant's Exhibit No. 3—Letters Patent of  
Thomas Strain for Improvement in Fruit  
Graders.**

Entered

B. 6, P. 300

Townsend Bros.

No.

775,015

**THE UNITED STATES OF AMERICA.**

To All to Whom These Presents Shall Come:

WHEREAS Thomas Strain

of Placentia, California,

has presented to the Commissioner of Patents a petition praying for the grant of Letters Patent for an alleged new and useful improvement in

Fruit Graders,

a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of Law in such cases made and provided, and

WHEREAS upon due examination made the said Claimant is adjudged to be justly entitled to a Patent under the law.

Now therefore these Letters Patent are to grant unto the said Thomas Strain, his heirs or assigns for the term of Seventeen years from the fifteenth day of November, one thousand nine hundred and four the exclusive right to make, use and vend the said invention throughout the United States and the Territories thereof.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this fifteenth day of November, in the year of our Lord one thousand nine hundred and four, and of the Independence of the United States of America the one hundred and twenty-ninth.

[Seal]

F. I. ALLEN,  
Commissioner of Patents. [593]

No. 775,015.

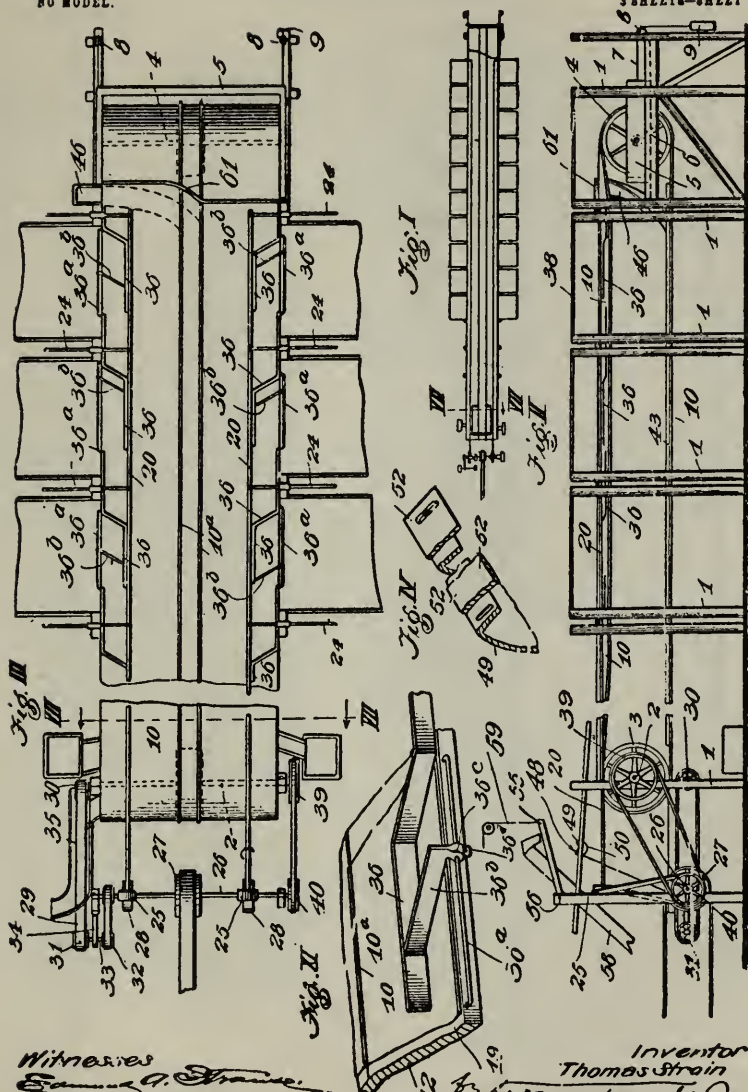
PATENTED NOV 15, 1904.

T. STRAIN.  
FRUIT GRADER.

APPLICATION FILED JAN. 12, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses  
James G. Strain  
J. P. Hackley

Inventor  
Thomas Strain  
J. P. Townsend & Co  
his atty

No. 775,015.

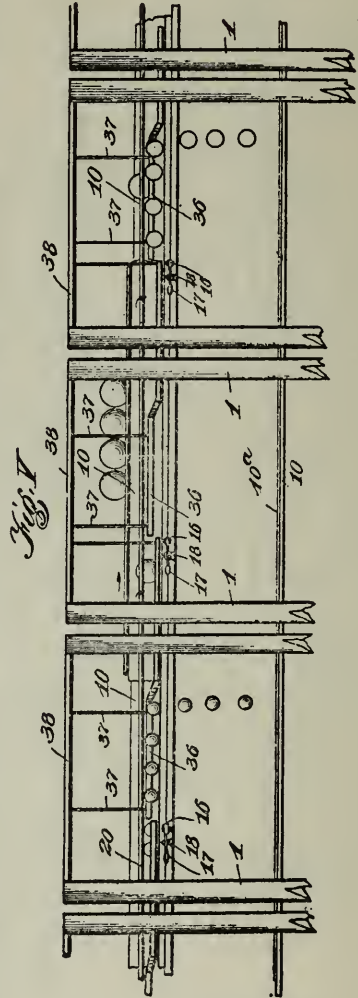
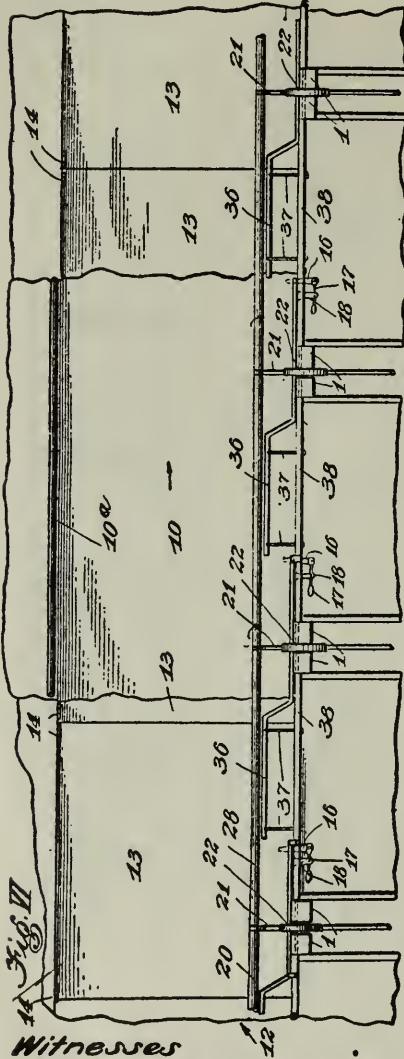
PATENTED NOV. 15, 1904.

T. STRAIN.  
FRUIT GRADER.

APPLICATION FILED JAN. 12, 1903

NO MODEL.

3 SHEETS—SHEET 3



Witnesses

*G. P. Hackley*  
*G. P. Hackley*

Inventor

Thomas Strain

*by Townsend Bros*  
*his atty*



No. 775,015.

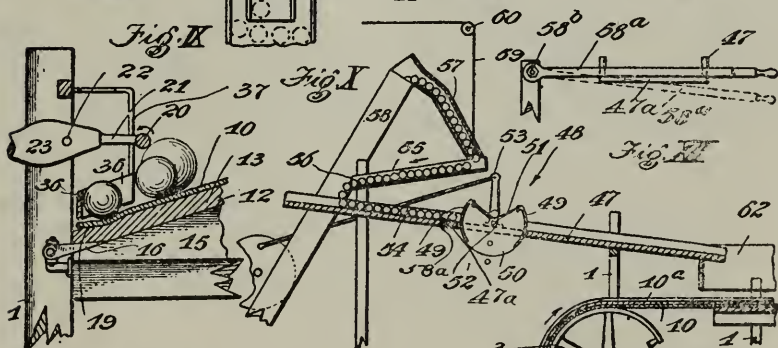
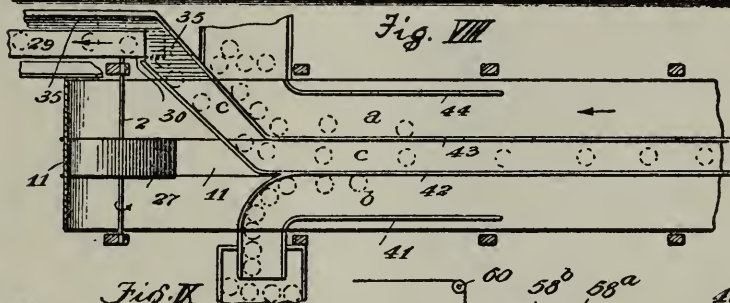
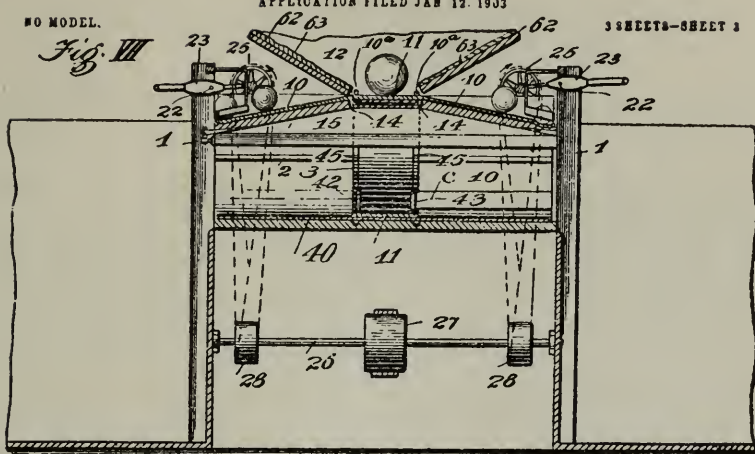
PATENTED NOV 15, 1904.

T. STRAIN.  
FRUIT GRADER.

APPLICATION FILED JAN 12 1953

NO MODEL.

38 SHEETS—SHEET 1



Witnesses

Witnesses  
Emma A. Strong

J. P. Mackley

Inventor  
Thomas Strain  
by Townsend Bros  
his Atty

No. 775,015.

Patented November 15, 1904.

## UNITED STATES PATENT OFFICE.

THOMAS STRAIN, OF PLACENTIA, CALIFORNIA.  
FRUIT-GRADER.

**SPECIFICATION** forming part of Letters Patent No. 775,015, dated November 15, 1904.  
Application filed January 12, 1903. Serial No. 138,752. (No model.)

*To all whom it may concern:*

Be it known that, I, THOMAS STRAIN, a citizen of the United States, residing at Placentia, in the county of Orange and State of California, have invented a new and useful Fruit-Grader, of which the following is a specification.

My invention relates to a machine by means of which different sizes of fruit may be gaged and sorted or separated into bins.

One object of my invention is to provide a fruit-grader which will effectively grade the fruit without damaging the fruit.

Another object of my invention is to provide means whereby the fruit will be thoroughly mixed or delivered, into each bin in such a way that the several sizes of fruit in each bin are perfectly distributed. This is a valuable feature, for the reason that although the average size of fruit in different bins will vary, still the actual size of fruit delivered into each bin will also vary somewhat.

Briefly, my invention consists of means for conveying the fruit along an inclined surface and means arranged along the inclined surface to hold fruit of certain sizes at certain points on the inclined surface and to allow certain sizes of fruit to escape at certain points along the inclined surface.

Referring to the drawings, Figure I is a diagrammatical plan view which shows the general arrangement of the fruit-grader. Fig. II is a side elevation of the conveyer, showing only a few bins. Fig. III is a plan view of what is shown in Fig. II. Fig. IV is a detail of a fragment of part of the feed-regulator. Fig. V is an enlarged side elevation of a section of the elevator, showing three bins, Fig. VI is a plan view of what is shown in Fig. V. In this view only one side of a portion of the elevator has been illustrated. Fig. VII is an enlarged section taken on the line VII-VII, Fig. VIII is a plan view, partially in section, of the lower part of the feeding end of the grader. In this view the lower half of the belt is shown. Fig. IX is a transverse sectional view of a portion of one side of the upper part of the grader. Fig. X is a detail of part of the feeding device. Fig. XI is a perspective view of a guard and adjustable deflector. Fig. XII is a detail of a

device for regulating the flow of fruit through the feeding-trough.

1 designates a supporting-frame. The length of the frame will be dependent upon the number of bins employed in the grader. It should be understood that only a few bins are shown in the drawings and that as many bins may be used as desired. Mounted at one end of the frame is a shaft 2, upon which is mounted a pulley 3. At the other end of the frame a pulley 4 is mounted on a shaft journaled in a frame 5, the frame 5 being slidably mounted on horizontal bars 6, supported by the frame 1.

7 is a flexible connection attached to the frame 5 and passes over an antifriction device 8, carried by the frame 1.

9 is a weight carried by the flexible connection 7.

10 is a conveyer-belt which has secured in any suitable manner along its inner middle face a narrow reinforcing strip or belt 11, which latter is mounted upon the pulleys 3 and 4. The conveyer-belt 10 is relatively very much wider than the strip 11.

12 is a table having a middle portion which is horizontal and having sides which are inclined or sloping along each side of the center horizontal part. The central flat part is provided with a slight longitudinal recess in which loosely rides the belt 11. The inclined part of the table 12 is made in sections consisting of a series of hinged leaves 13, each leaf being hinged to the center portion of the table, as at 14.

15 represents cross-bars carried by the frame 1. 16 designates wedges which are interposed between the outer edges of the leaves 13 and the cross-bars 15. Each wedge 16 is connected to a lever 17, the lever 17 being pivoted to a bracket 18. By manipulating the lever 17 and moving the wedges 16 in or out the leaves 13 may be raised or lowered and given a greater or less inclination, as desired.

The belt 10 is supported upon the upper surface of the table 12. Each leaf near its outer edge is provided with a concave depression 19.

20 designates grading-rods arranged along

opposite sides of the grader, each rod being rotatably mounted on adjustable arms 21. Each arm 21 is pivoted to the frame 1, as at 22. Each arm 21 is provided with an enlargement 23, one face or side of which is normally in close contact with the frame 1 to afford sufficient friction for holding the arm 21 in the position in which it is placed, the friction produced being sufficient to hold the arm in the desired position. The grader-rods 20 should be long enough to reach to the end of the conveyer. The grading-rods are comparatively slender, as shown, and are flexible to a considerable extent and are supported at intervals by the arms 21, so that any section of a grading-rod may be adjusted relatively to the conveyer. For instance, an intermediate section may be adjusted to the desired height above the conveyer without disturbing the adjustment of the other sections. When each section of the grading-rods has been adjusted, as desired, a grading-rod may not be straight, but the flexibility of the rods and comparatively slow speed at which they run permit of such adjustment. The general line of a grading-rod is of course inclined to the conveyer, but the arms 21 are provided so that when they are adjusted each section of a rod lying between adjacent arms may be substantially parallel with the conveyer. The grading-rods are provided with pulley 25 at one end.

26 is a driving-shaft mounted on the frame 1 and driven by a pulley 27.

28 represents pulleys mounted on the driving-shaft 26, each of which is connected with a pulley 25 by crossed belts.

The grading-rods 20 revolve in opposite directions, and the movement of the lower face of the rod is always away from the lower plane of the inclined leaves. This movement prevents fruit from being drawn in under the rods and squeezed against the conveyer-belt. The fruit does not pass under the rods until the space reached is just large enough for the fruit to pass through easily.

29 designates an auxiliary conveyer-belt which is mounted on pulleys 30 and 31. The pulley 31 is connected to another pulley, 32, by a shaft 33, which latter is mounted on a bracket 34. The pulley 32 is driven by a belt from the pulley on the shaft 26. Arranged at each side of the belt 29 are sloping side plates forming a trough 35.

36 designates guards which are supported by rods 37, which are suspended from bars 38. The guards 36 are suspended in such a way that they lie close to the conveyer-belt and yet do not touch the belt, and as the fruit passes under the grading-rods at different points it is shunted by the guards 36 into the proper bins. The guards 36 are arranged along each side of the conveyer-belt, one guard for each bin.

36a represents brackets attached to the ends of the leaves. Mounted on each bracket is an inclined deflector 36b. The deflector 36b is provided with a lug 36c, and the latter is adjustably mounted on the bracket 36a and clamped thereto by means of a set-screw. The deflector 36b may be placed at any point along the bracket 36a, so that fruit may be shunted into the bin at any desired point. This allows the fruit to be delivered into the bin in such a way that it is thoroughly graded. If the fruit were delivered into the bin directly from under the grading-rods, the size of the fruit in the bin at one extreme side would be different than the size at the other side. To overcome this difficulty, I employ the guards 36, and the deflector 36b, by means of which the fruit is thoroughly mixed in the bin, and no particular size occupies a particular place in the bin, as would be the case were the guards and deflectors not employed.

39 designates a pulley on the shaft 26.

40 designates a pulley on the shaft 27.

The pulleys 40 and 39 are connected by a belt.

41 42 43 44 designate walls which are supported by rods 45. The rods 45 are supported by cross-bars 15. The walls 41, 42, 43 and 44 are suspended above the bottom pulley 10, run of the belt 10 in such a way that they are close to the belt and yet do not touch the belt. These walls provide three troughs, *a*, *b* and *c*. Trough *a* and *b* provide for guiding into the bins the fruit that is removed by the rods 20 from the conveyer-belt. The troughs *a* and *b* are merely of sufficient length to extend along that portion of the length of the conveyer which is devoted to the sorters. In a grader which is thirty feet long this space devoted to the sorter may be about one-third. The middle trough *c*, as shown in Figs. I, II, III, communicates, through the medium of the trough 46, with the upper surface of the belt 10 of the conveyer-belt. The other end of the trough *c* is offset and terminates in the trough 35.

47 designates an inclined trough arranged over the feeding end of the grader. At the center of the trough 47 is an oscillator or regulator 48, formed of segmental plates 49, which plates are connected together by a shaft 50, the feeder being pivotally mounted to the trough 47.

51 designates plates which are arranged and attached at angles to the segmental plates 49. The plates 51 are spaced apart at the outer edges, the space being sufficient to retain fruit which it is desired to handle through the grader and yet will allow fruit which is very much undersized and which is not desired to grade to drop through the space and be discharged.

The feed-regulator 48 is provided with an upright arm 53, which may be connected



any rotatable part by means of a rod 54. Arranged above the trough 47 is a tilting table 55, pivoted at 56.

57 is a trough which extends from the upper end of the fruit-elevator 58 to the tilting table 55.

59 is a flexible connection from the free end of the tilting table 55, which passes over a pulley 60 and may be connected with a prime feeding device which is not shown in the drawings. When the tilting table 55 becomes filled with fruit, the weight of the fruit causes the table to tilt downward, which pulls on the flexible connection 59, and the latter controls the action of the prime feeding device. (Not shown in the drawings.) The fruit is discharged from the tilting table 55 into the trough 47 and rolls down the same till it comes in contact with the feed-regulator 48. It stays in that position until the feed-regulator is rocked into such position that the plate 52 is brought into a position that allows the fruit to roll up onto the plate 52 and into the V-shaped portion of the feed-regulator. The feed-regulator after being filled is gradually rocked into the position shown in Fig. X and continues until the fruit in the regulator is discharged therefrom into the lower part of the trough. The fruit in the trough 47 is prevented from entering the feed-regulator by reason of the curved segmental plate 49. Any fruit which has been admitted to the feed-regulator which is undersized will fall through the opening between the two plates 52.

58a is a bar which is pivoted at 58b to the trough 47 and lies transversely of the trough, the trough 47 being slotted, as at 47a, to receive the bar 58a. By swinging the bar 58a into or out of the trough the fruit may be stopped or allowed to travel. When the fruit is stopped thereby, the fruit piles up and accumulates on the tilting table, causing the same to operate and shut down the prime feeding device. (Not shown.)

In operation fruit is delivered onto the conveyor-belt 10 from the trough 47. The fruit is carried along on the conveyor-belt 10 between the ridges 10a, extending longitudinally on the outer face thereof. Sorters who stand along both sides of the grader near the feeding end pick out what fruit is not suitable for packing and place such fruit in the troughs a and b, and this fruit is conveyed by the lower part of the belt through the troughs a and b and delivered into suitable bins. The sorters pick off good fruit from between the ridges 10a and place it on each of the inclined sides of the belt, where the fruit rolls down against the grading-rods 20 and is carried along the grading-rods 20. The space between the grading-rods and the belt 10 gradually varies, so that the larger fruit is carried by the conveyor-belt to the farther end of the grader and the small fruit is allowed to escape

under the grading-rods at a point much closer to the feeding end of the machine. Intermediate sizes of fruit will escape under the rods at intermediate places along the rod. It will be observed that by reason of the rotation of the rods 20 the fruit is prevented from becoming pinched between the rods 20 and belt 10, the rotation of the rods being in a direction which does not tend to draw the fruit under the rods. It will be seen that the fruit is carried to the utmost limit as determined by the space which will allow or retain the fruit on the conveyor-belt 10. When a certain size fruit is discharged under the rod 20, which can only occur at clear spaces between consecutive guards 36, it rolls down the inclined belt and rest against the lower section of a guard 36. (See Fig. IX.) When the fruit is in contact with the guard 36, it rests in the concave hollow depression 19.

The guard 36 serves to hold the fruit from being delivered into the bin until the belt has traveled a sufficient distance to bring the fruit to the desired point opposite the bin, at which point the deflector 36b, which stands in front of the offset inclined part of the next guard, shunts the fruit into the bin. The hollow depression holds the fruit on the conveyor-belt after the fruit has passed under the grading-rods before being shunted by the guards. Fruit that is not removed by the sorters from the central portion of the belt is carried to the farther end of the grader, where it is deflected by means of the grader 61 and delivered into the trough 46, down through which the fruit rolls, being discharged onto the lower part of the belt 10, falling into the trough c. The fruit is conveyed back to the feeding end of the grader by the lower part of the belt and is guided by the trough c into the trough 35, and from the latter it is delivered onto the auxiliary conveyor-belt 29, which carries it rearward to the elevator 58, the connection between this conveyor and elevator is not shown in the drawings.

The space between the rods 20 and the conveyor-belt may be adjusted in two ways—either by raising or lowering the grading-rods 20 by means of the arms 21, or by raising or lowering the leaves 13 by moving the wedges 16 in or out by manipulation of the levers 17. The latter method is preferable for the reason that it does not throw the grading-rod 20 out of its natural alinement. It should be understood that as the grading-rod 20 is slender it permits of being adjusted within reasonable limits—that is, it permits being thrown out of straight alinement. By raising and lowering the leaves 13 accurate adjustment of space may be secured for each section of the grader. It should be understood that the movement of the leaves or of the rods 20 when being adjusted is very slight, comparatively, and that the guards 36 are arranged a sufficient distance above the conveyor-belt to

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allow the desired movement in adjusting the leaves.

Referring to Fig. VII, 62 designates a trough formed of inclined plates provided on their upper surfaces with padding, such as 63, these serve to guide and soften the fall of the fruit from the trough 47 onto the conveyor-belt 10, the oranges in falling strike the padded portion 63, which prevents the fruit being bruised.

It should be understood that I contemplate making such changes and alterations in the herein-described embodiment as will come within the scope of my invention.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, and means for adjusting intermediate sections of the grading-rod relatively to the grading-rod.

2. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, a series of arms supporting said grading-rod at intervals, means for supporting said arms, and means for frictionally holding said arms in a desired position.

3. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, a table for supporting said inclined conveying means, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, and means for supporting said grading-rod embracing an arm pivoted between said pair of bars and a bolt passing through said bars and arm.

4. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, a table for supporting said conveying means, a plurality of pairs of upright bars supporting the table, an arm pivoted between each pair of bars, an inclined grading-rod lying along said line of travel above said conveying means, said rod being rotatably mounted in said arms and means for rotating said rod.

5. A fruit-grader comprising traveling means for conveying fruit along a definite line of travel, said means embracing movable opposite inclined portions of flexible means for retaining fruit on each of said inclined portions and lying along said line of travel above said conveying means and having its axis inclined.

6. A fruit-grader comprising traveling means for conveying fruit along a definite line

of travel, means embracing movable opposite inclined portions the inclination of each portion being transverse of the line of travel, a plurality of flexible inclined grading-rods, each rod lying along said line of travel above said conveying means, and means for rotating said grading-rods.

7. A fruit-grader comprising traveling means for conveying fruit along a definite line of travel, means embracing movable opposite inclined portions, the inclination of each portion being transverse of the line of travel, a plurality of flexible inclined grading-rods, each grading-rod lying along said line of travel above said conveying means and means for rotating said grading-rods in opposite directions.

8. A fruit-grader comprising traveling means for conveying fruit along a definite line of travel, means embracing movable opposite inclined portions, the inclination of each portion being transverse of the line of travel, a plurality of flexible grading-rods, each grading-rod lying along said line of travel above said conveying means, and means for rotating said grading-rods in opposite directions, the directions of rotation of each rod being such that the moving under surface of each rod is substantially directed away from the lower plane of its adjacent inclined portion of said conveying means.

9. A fruit-grader comprising means for conveying fruit along a definite line of travel embracing an endless belt, means for supporting opposite sides of said belt in symmetrical inclined positions, means for gaging fruit on said inclined portions of said belt and lying along said line of travel above said belt, said latter means having their axes inclined in the same direction.

10. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means embracing an endless belt, means for supporting opposite sides of said belt in symmetrical inclined positions, a plurality of grading-rods, each rod lying along said line of travel above said belt, both grading-rods being inclined in the same direction, and means for rotating said grading-rods.

11. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means embracing an endless belt, means for supporting opposite sides of said belt in symmetrical inclined positions, a plurality of grading-rods, each grading-rod lying along said line of travel above said belt, both grading-rods being inclined in the same direction, and means for rotating said grading-rods, the direction of movement of both rods being such that the moving under surface of each rod is substantially directed away from the lower plane of the inclined parts of said belt.

12. A fruit-grader comprising a frame, a table consisting of a horizontal central portion having a plurality of opposite hinged leaves,



means for supporting said leaves in a desired position, an endless belt, means for propelling said belt longitudinally over said table, and means for retaining fruit on said belt and

5 lying along said line of travel above said belt and having its axis inclined.

13. A fruit-grader comprising a frame, a table consisting of a horizontal central portion having a plurality of opposite hinged leaves, 10 means for supporting said leaves in a desired position, an endless belt, means for propelling said belt longitudinally over said table, means for retaining fruit on said belt and lying along said line of travel above said belt 15 and having its axis inclined, and means for adjusting each of said leaves independently of the others.

14. A fruit-grader comprising a frame, a table consisting of a horizontal central portion 20 having a plurality of opposite hinged leaves, means for supporting said leaves in a desired position, an endless belt, means for causing said belt to travel longitudinally over said table, means for gaging fruit on said belt, 25 and lying along said line of travel above said belt and having its axis inclined, cross-bars on said frame under each leaf, a wedge interposed between each leaf and each cross-bar and means for adjusting said wedges.

30 15. A fruit-grader comprising a frame, a table consisting of a horizontal central portion having a plurality of opposite hinged leaves, means for supporting said leaves in a desired position, an endless belt, means for causing 35 said belt to travel longitudinally over said table, and means for retaining fruit on said belt, and lying along said line of travel above said belt and having its axis inclined, a plurality of cross-bars on said frame, a cross-bar 40 being under each leaf, a wedge interposed between each leaf and cross-bar, and a plurality of levers pivoted to the frame, each lever being connected to a wedge.

16. A fruit-grader comprising a frame, a 45 table supported on the frame consisting of a horizontal central portion having a plurality of pivoted leaves, a pulley rotatably mounted at one end of said table, a frame slidably mounted on horizontal bars at the other end 50 of said first-mentioned frame, a pulley rotatably mounted on said slidable frame, a belt carried by said pulleys, the upper half of said belt lying along and supported upon said table and leaves, and means for drawing said 55 pulley in a direction away from said first-named pulley and thereby placing said belt under tension.

17. A fruit-grader comprising a frame, a 60 table supported on the frame consisting of a horizontal central portion having a plurality of leaves, a pulley rotatably mounted at one end of said table, a frame slidably mounted on horizontal bars at the other end of said first-mentioned frame, a pulley rotatably mounted 65 on said slidable frame, a belt carried by said

pulleys, the upper half of said belt lying along and resting upon said table and leaves, a flexible connection connected to said slidable frame, a sheave supporting said flexible connection, a weight carried by the end of said 70 flexible connection.

18. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying 75 along said line of travel above said conveying means, means for rotating said grading-rod, and stationary guards and deflectors mounted above said conveying means.

19. A fruit-grader comprising means for 80 conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, 85 and stationary guards mounted above said conveying means, each guard comprising offset walls, each wall lying in different vertical planes, the inner wall lying adjacent said grading-rod. 90

20. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying 95 means, means for rotating said grading-rod, guards for said conveying means, brackets connected to the frame and supporting said guards.

21. A fruit-grader comprising means for 100 conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, 105 and stationary guards mounted above said conveying means and a deflector adjustably mounted near said guard and movable along said guard.

22. A fruit-grader comprising means for 110 conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, 115 and stationary guards mounted above said conveying means, a deflector, a perforated lug thereon, a horizontal bracket mounted on said frame and parallel with said guard, said perforated lug being mounted on said bracket 120 and a set-screw through the lug and bearing against the bracket, said deflector-plate lying at an angle to said guard.

23. A fruit-grader comprising means for conveying fruit along a definite line of travel, 125 said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, stationary guards mounted above said con- 130

veying means, a deflector with a perforated lug thereon, a horizontal bracket mounted on said frame and parallel with one of said guards, said perforated lug being mounted on said bracket and a set-screw through the lug and bearing against the bracket said deflector lying at an angle to said guard, and parallel with the offset part of said guard.

24. A fruit-grader having a frame, a table consisting of a depressed horizontal central portion, a plurality of leaves hinged on opposite sides, an endless belt movable along the upper surface of said table and leaves, and a relatively narrow reinforcing-belt on the inside of said main belt, said reinforcing-belt lying within said depressed central portion.

25. A fruit-grader having a frame, a table having a depressed horizontal central portion, a plurality of leaves hinged on opposite sides of the central portion, an endless belt movable along the upper surface of said table and leaves, a relatively narrow reinforcing-belt on the inside of said main belt, said reinforcing-belt lying within said depressed central portion, and a pair of opposite ridges on the outside face of said conveyer-belt.

26. A fruit-grader having a frame, a table mounted on the frame embracing a plurality of opposite hinged leaves, each leaf being provided with a concave depression along its outer edge, a conveyer-belt mounted to move along the upper surface of said table and leaves, a pair of grading-rods arranged along opposite sides of the leaves and inside of said depression, and means for rotating said grading-rods.

27. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, a plurality of flexible inclined grading-rods lying along said line of travel above said conveying means, means for rotating said grading-rods, means for feeding fruit to one end of said conveying means, and a deflector at the other end of said conveying means.

28. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rods, means for feeding fruit to one end of said conveying means, a deflector at the other end of said conveying means, a trough having a mouth arranged adjacent said deflector, said trough extending below the upper part of the belt, and having its discharge-spout arranged above the central part of the lower part of the conveyer means.

29. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying

along said line of travel above said conveying means, means for rotating said grading-rod, means for feeding fruit to one end of said conveying means, means at the other end of said conveying means for transferring fruit from the retaining portion of said conveying means, a longitudinal trough mounted above the retaining or lower part of said conveying means.

30. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, means for feeding fruit to one end of said conveying means, means at the other end of said conveying means for transferring fruit to the returning portion of said conveying means, a longitudinal trough mounted above the returning or lower part of said conveying means, an auxiliary conveyor connecting with the rear end of said last-named trough, said auxiliary comprising an endless belt mounted on a pair of pulleys, and means for driving said pulleys.

31. A fruit-grader comprising a frame, a pulley mounted in each end of said frame, a belt mounted on said pulleys, a conveyer-belt connected to said first-named belt, means for supporting the outer portions of said conveyer-belt in inclined positions, a pair of grading-rods mounted above said conveyer-belt, each rod being near the outside edge of the conveyer-belt and slightly above the belt, the space between the rods and the belt at the feeding end of said belt being less than the distance between said rods and said belt at points beyond said feeding end, and means for rotating said rods in opposite directions.

32. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, means for feeding fruit to said conveying means comprising an inclined trough, an oscillatory feed-regulator mounted transversely of said trough, said feed-regulator comprising a pair of segmental curved plates concentric with the axis of said feed-regulator, a pair of flat plates mounted on the upper edges of said curved plates, the free edges of said flat plates being at angles to each other, and means for oscillating said feed-regulator.

33. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, means for feeding fruit to said conveying means comprising an inclined trough, an oscillatory feed-regulator mounted transversely

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of said trough, said feed-regulator comprising a pair of segmental curved plates concentric with the axis of said feed-regulator, a pair of flat plates mounted on the upper edges of said curved plates the free edges of said flat plates being at angles to each other, and means for oscillating said feed-regulator, the axis of said feed-regulator being substantially in a line with the bottom of said inclined trough.

34. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, means for grading fruit lying along said line of travel above said conveying means and having its axis inclined, means for feeding fruit to said conveying means embracing an inclined trough, an oscillatory feed-regulator extending transversely of said inclined trough, means for oscillating said feed-regulator, and a balanced tilting table mounted above said inclined trough.

35. A fruit-grader comprising a frame, a table supported by the frame embracing a horizontal portion, inclined hinged leaves, a pulley mounted on each end of the frame, a belt carried by the belt, said belt movable along over the upper faces of said table and leaves, means for feeding fruit to the upper face of said belt at one end, means at the other end of said belt for transferring fruit from the upper face of the belt to the lower part of the belt, a trough extending along the upper side of the lower part of said belt, said trough being slightly above the belt and at its rear end being offset and extending beyond the edge of the belt, and a pair of relatively short auxiliary troughs parallel with the main part of the longitudinal trough and adjacent the offset of the main trough.

36. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, a series of bins arranged along each side of the conveying means and means for adjusting portions of said grading-rod to various heights above the conveying means adjacent to each bin.

37. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, means for supporting said conveying means embracing a table consisting of a central horizontal portion and a plurality of inclined hinged leaves arranged along each side of the horizontal part, a plurality of bins for the respective leaves, a bin being arranged adjacent each leaf, means for adjusting each leaf independently of the others, a plurality of guards for the respective bins, each of said guards

extending considerably each side of the partition between two bins.

38. A fruit-grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading-rod lying along said line of travel above said conveying means, means for rotating said grading-rod, means for feeding fruit to said conveying means comprising an inclined trough, an oscillatory feed-regulator rotatably mounted in said inclined trough, said feed-regulator comprising a pair of segmental curved plates concentric to the axis of said feed-regulator, a pair of flat plates, each plate being provided with elongated slots, screws passing through said slots and fastening said flat plates to said curved plates, and means for rocking said feed-regulator.

39. In a device of the character described, means for feeding fruit thereto consisting of an inclined trough, an oscillatory feed-regulator arranged transversely of said trough, said feed-regulator comprising a pair of curved segmental plates concentric with the axis of said feed-regulator, and a pair of flat plates adjustably secured at angles to said curved plates, and means for rocking said feed-regulator.

40. In a fruit-grader, a frame, a driving-shaft mounted at one end of the frame, a slidable regulating-frame mounted on horizontal bars of the main frame, a shaft mounted on said slidable frame, a pulley mounted on the latter shaft, a pulley mounted on the driving-shaft, a conveyer-belt mounted on the two pulleys, a second shaft mounted on the frame, a pair of grading-rods extending longitudinally of said conveyer-belt, each rod being spaced slightly above the belt and inclined, a pair of pulleys on the second driving-shaft, a pulley on the rear end of each grading-rod, a belt connecting each of said pulleys with pulleys on the second driving-shaft, an auxiliary conveyer comprising a pair of pulleys, a belt connecting said pulleys, said auxiliary conveyer lying parallel to said conveyer-belt, bins arranged along each side of the conveyer-belt, guards in front of each bin, said guards embracing a plate offset to form two parallel planes, a horizontal bracket mounted on the outer edge of a leaf, an adjustable deflector comprising a plate provided with a perforated lug, said lug being slidably mounted on said bracket and a set-screw passing through said lug and fastening the same to said bracket.

41. In a fruit-grader, a frame, a driving-shaft mounted at one end of the frame, a slidable regulation-frame mounted on horizontal bars of the main frame, a shaft mounted on said slidable frame, a pulley mounted on the driving-shaft, a traveling belt mounted on the two pulleys, a second driving-shaft mounted on the frame, a pair of grading-rods extending longitudinally of said belt, each rod lying

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ear and spaced slightly above the belt, each  
 and being inclined, a pair of pulleys on the  
 second driving-shaft, a pulley on the rear end  
 of each grading-rod, a belt connecting each of  
 said pulleys with pulleys on the second driv-  
 ing-shaft, an auxiliary conveyer comprising a  
 pair of pulleys and a belt connecting said pul-  
 leys, said auxiliary conveyer lying parallel to  
 said conveyer-belt, bins arranged along each  
 side of the conveyer-belt, guards in front of  
 each bin, a guard embracing a plate offset to  
 form two parallel planes, a plurality of  
 rackets, a bracket being mounted on the edge  
 of each leaf, an inclined deflector-plate hav-

ing a perforated lug, said lug being mounted 15  
 on a bracket, the plane of said plate being  
 parallel to the offset angular-portion of the  
 guard near which said deflector-plate is at-  
 tached.

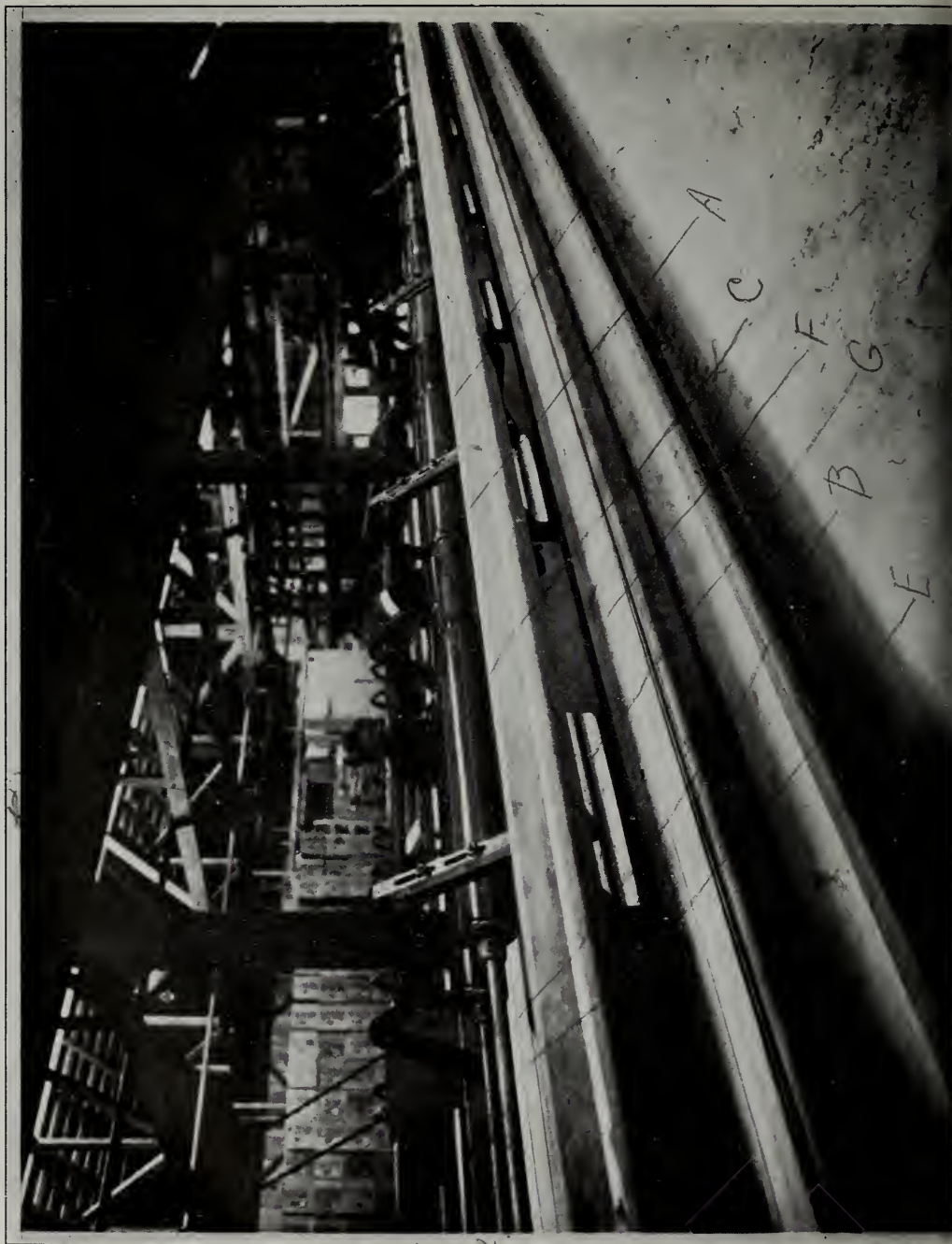
In testimony whereof I have signed my name 20  
 to this specification, in the presence of two sub-  
 scribing witnesses, at Los Angeles, in the  
 county of Los Angeles and State of Califor-  
 nia, this 7th day of January, 1903.

THOMAS STRAIN.

Witnesses:

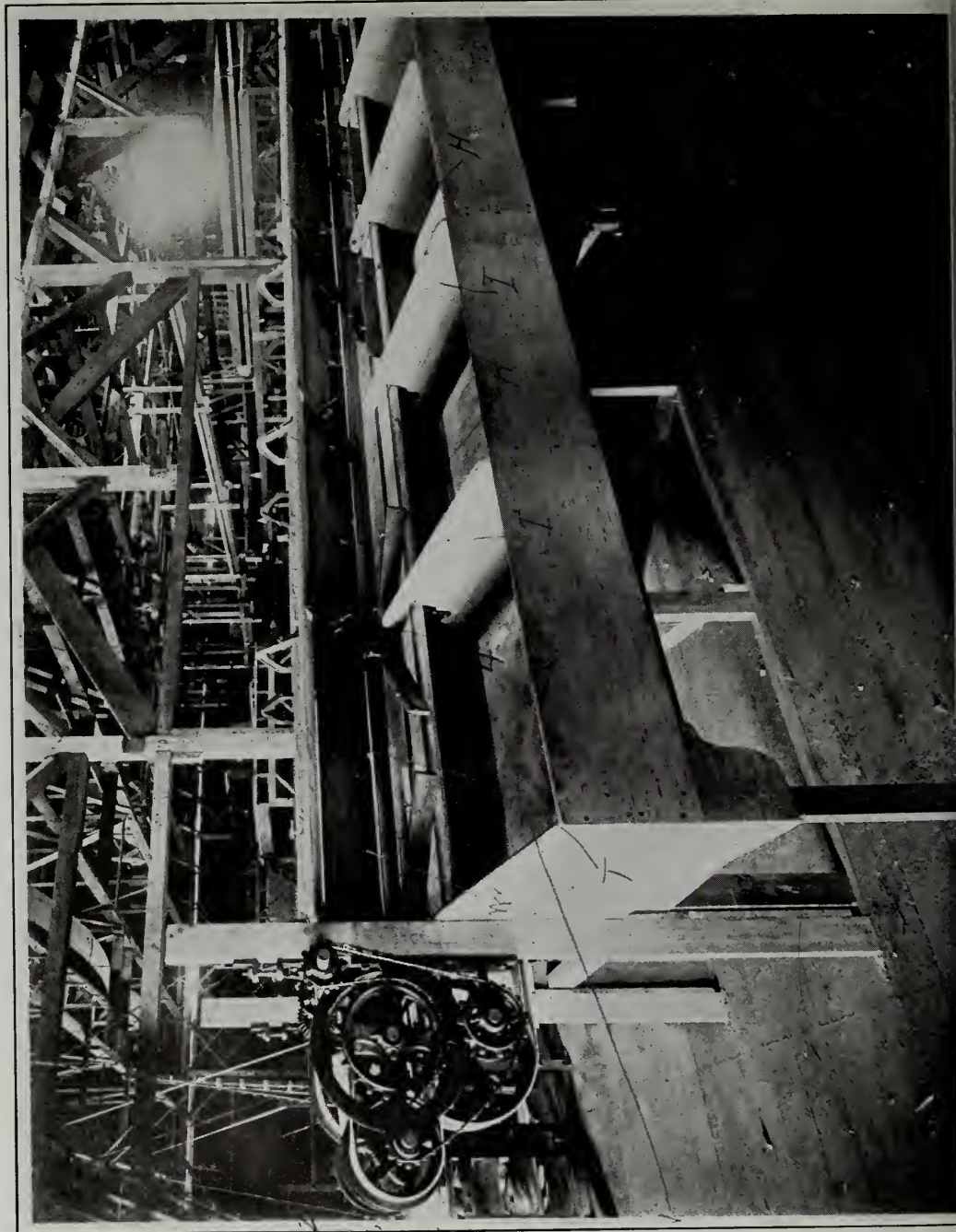
GEORGE T. HACKLEY,  
 JULIA TOWNSEND.

[Endorsed]: *Stebler vs. Porterville Cit. Assn.*  
 No. A-44, N. D. Compls. Exhibit No. 3. Filed  
 July 11, 1916. Wm. M. Van Dyke, Clerk. By  
 Leslie S. Colyer, Deputy Clerk. [606]

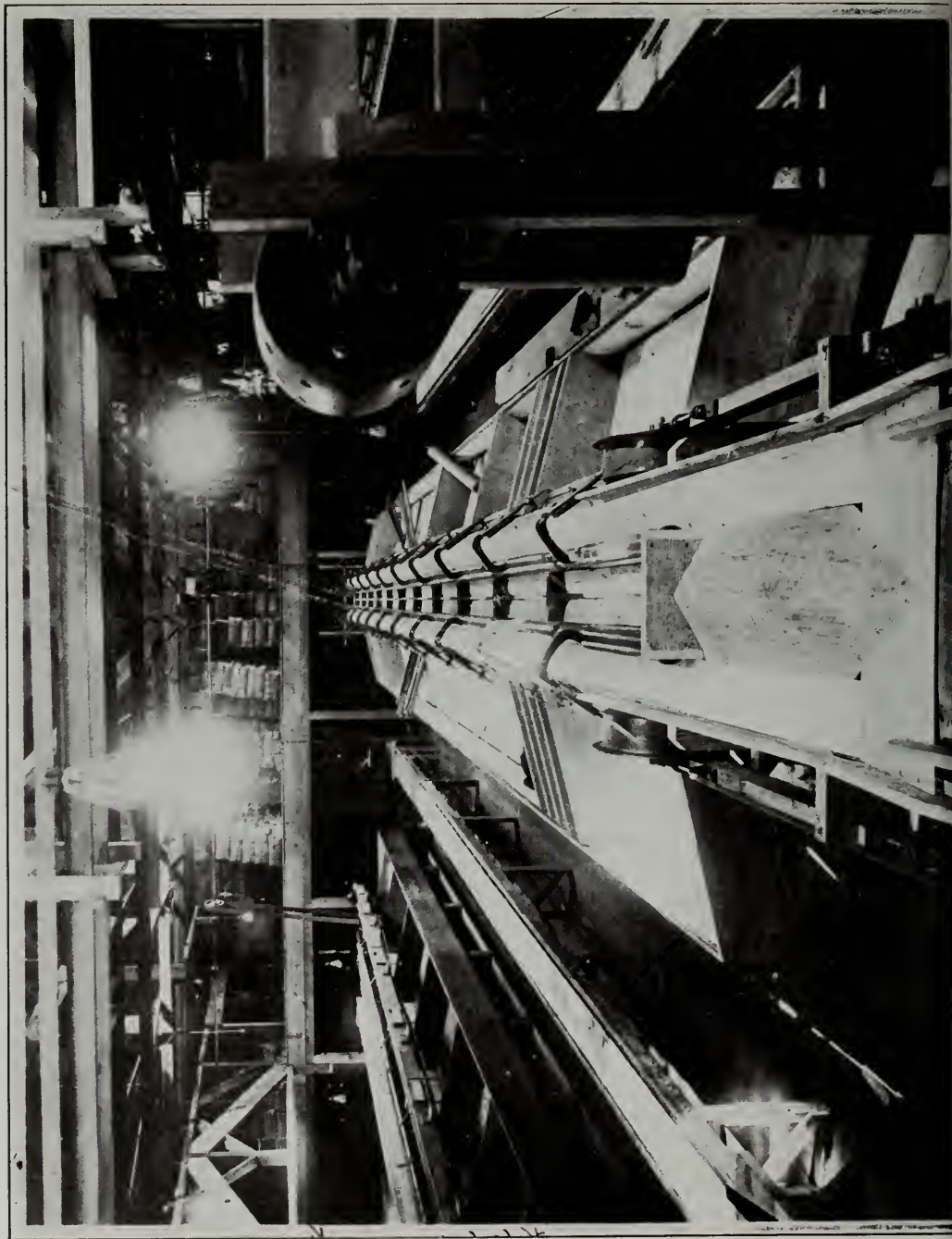




[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Compls. Exhibit No. 4. Filed  
July 11, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.



[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Compls. Exhibit No. 5. Filed July 11, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.



[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Compls. Exhibit No. 6. Filed  
July 11, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.





[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Compls. Exhibit No. 7. Filed July 11, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.



[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Compls. Exhibit No. 8. Filed  
July 11, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

**Complainant's Exhibit No. 9—Correspondence, John  
A. Milligan to Fred Stebler.**

Peter Ting,  
President.

John A. Milligan,  
Secretary and Manager.

**PORTERVILLE CITRUS ASSOCIATION.**

Growers and Packers of

**ORANGES, LEMONS AND GRAPE FRUIT.**

An Association of the Tulare County District of the  
California Fruit Growers Exchange.

Packing Houses at Porterville and Ponca.

Brands:

Directors:

Porterville's Best

P. Ting, President.

Forget-me-not

C. E. Lewis.

Tulip

E. O. Giddings.

Oak Leaf

W. V. Hutcheson.

Full Value

W. L. Ross.

W. P. Bartlett.

We use Exchange

H. C. Carr.

Cipher Codes.

John H. Orr.

C. E. Robin.

Porterville, Calif., Aug. 16, 1915. 191

Fred Stebler,

California Iron Works,

Riverside, California.

Dear Sir: I returned from the City Saturday Evening. I managed to get the Board of the Packing House Co. together today so as to consider the matter of the New Equipment and the Bids on the same. I give herewith a copy of the resolution deciding the matter.

“Moved by Brey and seconded by Orr that we au-



thorize the Secretary and Manager—Mr. Milligan—to enter into a contract in proper form, with Mr. Geo. D. Parker of the Parker Machine Works of Riverside, Calif. for the installation of an equipment for our Packing Houses as outlined in the plans submitted and according to the specifications relating thereto and as a part of the same; and upon the terms quoted.”

This motion was unanimously adopted.

I am returning to you as per agreement the plans you furnished. I may say that the uncertainty as to the use of old material in your proposition did not commend it to the Board. And another thing with the equipment as per your plan is that there is not enough room to allow for a satisfactory system of sorting tables. Takes up too much room.

Mr. Parker is perfectly willing to give us the privilege [612] to select any Sizer we may choose. We expect however to instal his new Sizer.

Yours truly,

PORTERVILLE PACKING HOUSE CO.

JOHN A. MILLIGAN, Secy. [613]

Peter Ting,  
President.

John A. Milligan,  
Secretary and Manager.

# PORTERVILLE CITRUS ASSOCIATION.

Growers and Packers of

## ORANGES, LEMONS AND GRAPE FRUIT.

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W. V. Hutcheson.

Full Value

W. L. Ross.

W. P. Bartlett.

We use Exchange

H. C. Carr.

Cipher Codes.

John H. Orr.

C. E. Robin.

Porterville, Calif., Nov. 1, 1915. 191—

F. Stebler,

California Iron Works,

Riverside, California.

Dear Sir: We received a notice from you some days ago concerning the installation in our packing house of a dryer by Mr. Parker. In this you claim that this infringes on certain of your rights and that suit is to be filed against the same.

We also received today a notice from presumably your attorneys concerning suit to be begun against Parker

~~you~~ in the matter of the new sizers, to which we

are to be made a party, unless we dismantle and discontinue the use of these sizers. The time limit being set as Nov. 2, 1915.

We have answered this notice from your Attorneys and doubtless they will convey to you the substance thereof.

We regret that you and Parker have so much trouble in keeping your interests separated to your mutual advantage. As packing house people we would be glad to help you both in any way we can. If there is no other way for you to settle your difficulties than fighting in the courts of course we can do nothing but look on as interested spectators. But as to our business matters in the using of the machinery available for the most advanced packing house equipment we are after the latest and the best. It is for us to require absolute protection against loss or interference in our packing operations whichever way these cases may [614] be decided. If the goods we have contracted for from Mr. Parker do not belong to him, or any part thereof are not his, we will expect him to meet all claims and clear the title to us or we will meet the claims ourselves and deduct the amount involved from his account.

As to the time limit of one day to obey the mandate of your attorneys we certainly have a right to look upon it as not only a bluff but one of special variety. In the first place the only way to stop installation & or use would be the securing of an injunction. In such case we would have a right to a hearing. It will not pay you to antagonize too much the packing house people as they will not submit to being forced too much.

I know you have lost out in this district and will lose out more as the result of your attitude toward us.

Hoping that these matters may all be adjusted satisfactorily to all concerned soon.

We are Truly Yours,

PORTERVILLE CITRUS ASSN.

JOHN A. MILLIGAN, Secy. & Mgr.

(In pencil) : Please return, Stebler. [615]

Peter Ting,  
President.

John A. Milligan,  
Secretary and Manager.

PORTERVILLE CITRUS ASSOCIATION.

Growers and Packers of

ORANGES, LEMONS AND GRAPE FRUIT.

An Association of the Tulare County District of the  
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W. V. Hutcheson.  
W. L. Ross.  
W. P. Bartlett.  
H. C. Carr.  
John H. Orr.  
C. E. Robin.

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We use Exchange  
Cipher Codes.

Porterville, Calif., Nov. 6. 1915. 191—.

Fred Stebler,  
Cal. Iron Works,  
Riverside, Cal.

Dear Sir; Your favor received. After reading it over carefully with a view to become familiar with its import, the first thing I did was to look over my letter to you of date—Nov. 1st, to see what there was therein to occasion the venom of your reply. I have gone over it item by item and tried to see each view point that might be taken. After doing so I cannot but assert that there is nothing in my letter to justify the views you have taken.

In the first place, I want to reaffirm what I said in my letter referred to. In doing this it is necessary for me to refer to the several parts of the letter.

First:—My acknowledgment of the receipt of the notice from your Attorneys and also one from yourself, on a different matter, was, I claim, in good form. I do not think that I was called upon to state to you the nature of the answer made thereto. You can get this from your Lawyers. I submit therefore that my letter in this part was all right.

Second:—With regard to the reference concerning who are to be made parties to the suit, that you claim we are in error about, my letter states the case as given in the notice, and we made no mistake, for we well understood that action would be brought against us. Your Attorneys could not fail to see from our answer to their notice that we were cognizant of this fact. [616] Your information therefore is no surprise. This has been your method heretofore and we knew we were still having to reckon with Mr. Stebler. I insist again that my report and answer was proper.

Third:—The expressions of regret concerning the



troubles between you and Mr. Parker which I offered, is perfectly legitimate. Why should we not regret these circumstances and so express ourselves. If I am to judge of the sentiments of people from their voluntary expression of opinion, I think I can speak for many of the packing-house people when I say that we have reason to regret the fact that those who are in the manufacturing business cannot so harmonize their interests as to make it possible for us to get the very best goods there are in the market, or that can be made available for use without being threatened and bulldozed and placed at the risk of possible delay in our packing interests through litigation. It matters not to us whether we pay Parker or Stebler, or in addition to paying the cash value of the article, we have to pay a royalty to one or the other, providing we get what we wish and the article gives us the service. I repeat, therefore, that it is our business to go after the latest and best. If there arises trouble between those who are furnishing us equipment, or any part thereof, we certainly are willing to help toward any amicable adjustment, if thereby we can secure the best by paying for it to those who have the right to make the charge, or, even paying tribute to those whose claims demand it. I think I am right therefore in saying that we are interested speculators in any conflict of claims pending settlement in the courts. So there was no sarcasm in this part of my letter. The letter will bear analysis and there is nothing contained therein to justify you in the statement—"that we are appropriating something that does not belong to us."

Fourth.—In the matter of our requiring protection from those who install our equipment for us, to which my letter refers as the clearing of title, this means just exactly what was intended and what you know I required of you and Mr. Stamm when you figured on our equipment, the same as in the case of Mr. Parker. This was a [617] guarantee of protection against loss from litigation and expense of same as well as a guarantee on efficiency and material and workmanship. We think we had the right to do this and we think we have the right to seriously doubt that any court will go so far as to say that the packing-houses will all of them henceforth use only the Stebler sizers.

We anticipated that there might be litigation and in such case, or any contingencies involved, we endeavored to protect ourselves. If the courts should decide that the new Parker sizer is an infringement on the Stebler and fixes an indemnity Parker will have to pay the same, or if the courts say that Parker's new sizer cannot be used then Parker will have to furnish us with two new sizers. And Mr. Parker was man enough to assure us that in (note this) (in ink) such case he would furnish the Stebler sizers if we wished them. Therefore I again insist that my letter was fair enough in stating the case. And we are doing you no wrong.

Fifth.—On the matter of the one day limit which might at first seem to justify you in your criticism of my apparent forgetfulness. I want to say that my characterization of it as a special variety of bluff is no misnomer. You must have known and your

attorneys should have known that the sizers were not in use but in process of being installed and to dismantle the same in the time specified was an impossibility. If it was not a bluff, therefore, any other term used might have reflected on the intelligence of those who designed the requirement. I used the word bluff because you had used it in your letter to me. If we had been frightened into an attempted compliance with the demand, it certainly would have been a bluff all right.

You speak as if we did not take the notice seriously. We did take it seriously and made answer without changing our opinion as to character of *of* the one day notice. As to former notices you gave, they were in the form of warnings from your view point [618] and from ours they were considered as threats, but in neither case did they prove anything as to whether the new sizer of Parker was an infringement of your rights and that is the one question that has to be settled and in which we are interested.

Sixth.—My suggestion in the words: "It will not pay you to antagonize too much the packing-house people as they will not submit to being forced." is evidently misinterpreted by you. This was intended as a friendly word and as such I repeat it with the additional emphasis that is given in the light of your letter. You have a perfect right to the use of your patents and protection against infringement by anyone. This fact we have recognized in our requirements from Mr. Parker. We, however recognize our own rights of choice in selecting what we thought

was best for us, considered in relation to our needs. If what we have selected belongs to you instead of Mr. Parker as you claim, then we are interested in having the courts decide this, and in such a case, as we have already intimated, Mr. Parker will have to recognize your rights and protect us. There is nothing wrong about this as far as I can see and we are not worrying over the pending trial. Go ahead: we are interested spectators even though we may be dragged into court because we are the innocent purchasers of goods over which you and Parker are fighting. We are not afraid of any action in the courts against us because we have refused to be influenced by your system of bulldozing. We have not stolen anything nor in any way taken advantage of anyone and your abuse of us in your letter cannot injure us but it certainly puts you in a very unenviable light. There is no need of this.

You are in business and we will doubtless need many of the supplies you only can furnish. But that is no reason why we should not select the goods of others if they suit us better. If these goods cannot be delivered to us owing to you having strings on them then it is up to the parties who propose to furnish these goods to look after the strings. [619]

Your letter of July && 27th last and also one of Aug. 17th, as well as conversations with me in this office—all of these before the contract was let, were calculated to impress on one the feeling that you were using pressure to force us to the putting in of your machinery, exclusively, or the machinery in which you were interested. I do claim that this policy



creates antagonism. Not to do you injury in any positive way but to as far as possible have no business dealings. Despite this, if your equipment had been best suited to our needs and to fit in to the space available and the price had been right we would probably have given you the contract. It was not prejudice or malice as you insinuate, but facts and figures that lost you the contract with us. Again I say: go ahead and have the matter decided legally as to whether the new sizer by Parker is an infringement on your rights. We are interested in having this done and in this attitude we are as much your friends as we are Mr. Parker's friends.

Now as to the charges you make against me personally I will say this that you are absolutely mistaken and have no warrant for the conclusions to which you come as expressed in your letter. A letter which if you had taken time to think over and realize its character you probably would not have written it. You imagine that I have done you an injury, but if the future teaches us anything it is more likely to teach you the folly of trying to force people to do business with you in an undue manner than it will teach us not to cross the path of Fred Stebler. I have not injured you in any way. You have been injuring yourself and are likely to do yourself more injury in the future, if this letter is a sample of what you give those who for whatever reason fail to give you their business.

If you had been as willing as Parker was to install for us any machinery we might select that was adapted to our needs and that was possible in re-



lation to our floor space and had the price [620] been satisfactory you would have had as good a chance as Parker to get the contract. I certainly could have done a great deal more for you under those circumstances.

I can assure you that as far as I am concerned, there will be nothing put in the way of your doing all the business in this district in the future that is possible. I expect to do business with you myself. We need your goods and are not prejudiced against them particularly. They have been so far the best we could get. But if there is any better available do not blame us for trying to get that. The new sizer of Parker's gives promise of being much better. This of course has to be proven by actual use. It seems to be a wholly different proposition from yours and for particular use is much the more desirable, if it proves a success. If he infringes on your rights in its construction that is for you and he to decide. Or rather for the courts to settle. If this sizer is a success and we cannot get it from Parker because it is yours then we will want it from you.

Will the courts sustain you in the position that we cannot have the machine we want?

As far as I am concerned, if any machine is invented or any improvement is added to any machine that will be of advantage to the industry with which I am connected I will hold myself free to promote it whoever may be the inventor. Of course always with due regard for the rights of others.

You and I certainly can remain as friends on these terms and neither of us need worry over trying to

run either "the territory of Tulare Co. or the "universe." Nor will there be any danger of your going to the "almshouse" because of "incompetency" or me going to the Penetentiary because I have "Willfully and maliciously appropriated without regard to equity the property of another." [621]

Trusting sincerely that the pending litigation may soon clearly define your rights and those of Mr. Parker in relation to the New Sizer,—which by the way is a dandy as far as appearances go,—so that in case it proves a success we may continue the use of it. These sizers are adapted to our house whereas yours are not.

I think you and I can afford to be friends and both of us be men.

Truly Yours

PORTERVILLE CITRUS ASSN.

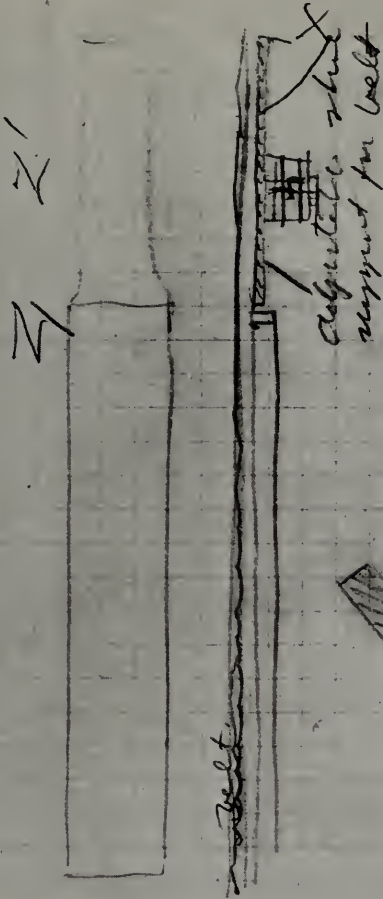
JOHN A. MILLIGAN, Secy. & Mgr.

[Endorsed]: Stebler vs. Porterville Cit. Assn. et al. No. A-44, N. D. Compls. Exhibit No. 9. Filed July 11, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. [622]

Complainant's Exhibit No. 10.

P.C.A.  
Porter v. Stebler

Nov. 12. 15

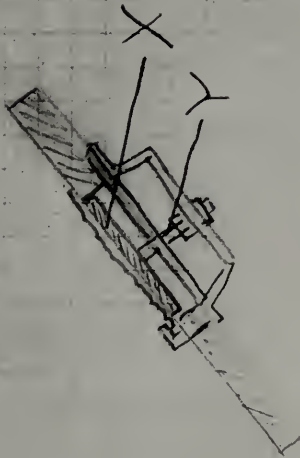


Stebler  
vs.  
Porter v. Stebler  
Comphs

No. 10  
July 15. 15

Leslie S. Colyer  
DEPUTY CLERK

AKK  
N.D.



**Complainant's Exhibit No. 11—Letter, October 12, 191—, John A. Milligan to Lyon & Hackley.**

Brands:	Directors:
Forget-me-not	J. A. Milligan, President
Tulip	A. Chalmers, Vice-President.
Oak Leaf	W. L. Ross
Full Value	H. C. Carr
	C. A. Davidson
We use Exchange	H. A. Frame
Cipher Codes.	E. O. Giddings
	F. L. Kennedy, Sec'y and Mgr.

An Association of the Tulare County District of the  
California Fruit Grower's Exchange.

**PORTERVILLE CITRUS ASSOCIATION.**

Growers and Packers of

**ORANGES, LEMONS AND GRAPE FRUIT**

Porterville, California, Oct. 12th, 191—.

Lyon & Hackley,  
Los Angeles,  
Calif.

Sirs: Your letter of the 9th inst. received. Our Manager Mr. Kennedy is at present in the south. In answering for him, I would say that your information concerning the Porterville Citrus Association being responsible for any infringement upon the rights of Mr. Stebler is in error. We have no machinery in our houses at Porterville that can be affected.

With regard to the Plano Packing-House Co. and the Boydston House at Worth, in whose houses we

pack fruit, if there is an infringement there, as evidently there is, the matter will be attended to at once. Nothing has been done here for the reason that the matter was in the hands of the attourneys at Los Angeles who were to effect a settlement.

Please let me know at once the basis of the satisfactory adjustment you propose. As we are to use the machinery of the Plano House we are interested of course to see that the thing is attended to promptly.

Truly Yours

THE PORTERVILLE CITRUS ASS.

JOHN A. MILLIGAN,

Ast. Mgr.

Rec. & Ans. 10/13/11

LYON. [624]

[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Compls. Exhibit No. 11. Filed July 13, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. [625]

---

**Complainant's Exhibit No. 12—Postal Card, J. A. Milligan to Lyon & Hackley.**

POST CARD.

This side of Card is for Address only. 1c postage stamp.

LYON AND HACKLEY,  
Merchants Trust Bldg.,  
207 So. Broadway,  
Los Angeles, Cal.



(Reverse side.)

Porterville, Cal., Oct. 15, 1911.

Lyon & Hackley,

Los Angeles, Cal.

Gentlemen: I interviewed a representative of the Board of the Plano Packing House Co., to day. He informs me that the amt due Stebler will be forwarded to you at once.

Truly yours,

PORTERVILLE CITRUS ASSN.

By J. A. MILLIGAN.

[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Compls. Exhibit 12. Filed July 13, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. [626]

---

**Complainant's Exhibit No. 13 — Letters Patent of Frank N. Ellithorpe for Improvement in Machines for Sorting and Grading Fruit, etc.**

UNITED STATES OF AMERICA.

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE.

To All to Whom These Presents Shall Come, Greeting:

THIS IS TO CERTIFY that the annexed is a true copy from the Records of this Office of the Letters Patent of

Frank N. Ellithorpe,

Number 527,953,

Granted October 23, 1894.

for

Improvements in Machines for Sorting or Grading Fruit, &c.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this 6th day of October, in the year of our Lord one thousand nine hundred and ten and of the Independence of the United States of America the one hundred and thirty-fifth.

[Seal]

F. A. TENNANT,  
Assistant Commissioner of Patents. [627]

No. 527,953.

THE UNITED STATES OF AMERICA,

To All to Whom These Presents Shall Come:

Whereas Frank N. Ellithorpe of  
Peachton, Ohio,

has presented to the Commissioner of Patents a petition praying for the grant of Letters Patent for an alleged new and useful improvement in

Machines for Sorting or Grading Fruit &c.,  
a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas upon due examination made the said claimant is adjudged to be justly entitled to a patent under the law;

Now therefore these Letters Patent are to grant unto the said

Frank N. Ellithorpe

his heirs or assigns for the term of seventeen years from the twenty-third day of October, one thousand

eight hundred and ninety-four, the exclusive right to make, use and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the City of Washington, this twenty-third day of October, in the year of our Lord one thousand eight hundred and ninety-four, and of the Independence of the United States of America the one hundred and nineteenth.

[Seal]

JNO. M. REYNOLDS,

Assistant Secretary of the Interior.

Countersigned:

JOHN S. SEYMOUR,

Commissioner of Patents.

A. M. M.

ccm [628]

[THOSE PORTIONS OF THIS EXHIBIT WHICH ARE DUPLICATED IN DEFENDANT'S EXHIBIT I ARE OMITTED HEREFROM.] [629]

[Endorsed]: 207, N. D. Stebler v. Pioneer Fruit Co. Defts. Exhibit 23. Filed June 29th, 1911. Wm. M. Van Dyke, Clerk. Stebler vs. Porterville Citrus Assn. No. A-44, N. D. Compls. Exhibit No. 13. Filed July 14, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. [630]

**Complainant's Exhibit No. 14—Letters Patent of  
Thomas Strain for Improvement in Fruit  
Graders.**

UNITED STATES OF AMERICA,  
DEPARTMENT OF THE INTERIOR,  
UNITED STATES PATENT OFFICE.

To All to Whom These Presents Shall Come, Greeting:

THIS IS TO CERTIFY that the annexed is a true copy from the Records of this Office of the Letters Patent of

Thomas Strain,  
Number 775,015,                      Granted November 15, 1904,  
for  
Improvement in Fruit-Graders.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this 6th day of October, in the year of our Lord one thousand nine hundred and ten, and of the Independence of the United States of America, the one hundred and thirty-fifth.

[Seal]

F. A. TENNANT,  
Assistant Commissioner of Patents. [631]

No. 775,015

THE UNITED STATES OF AMERICA.

To All to Whom These Presents Shall Come:

Whereas Thomas Strain, of  
Placentia, California,  
has presented to the Commissioner of Patents a peti-

tion praying for the grant of Letters Patent for an alleged new and useful improvement in

Fruit-Graders,

a description of which invention is contained in the specification of which a copy is hereto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas upon due examination made the said claimant is adjudged to be justly entitled to a patent under the law;

Now therefore these Letters Patent are to grant unto the said

Thomas Strain,

his heirs or assigns for the term of seventeen years from the fifteenth day of November, one thousand nine hundred and four, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this fifteenth day of November, in the year of our Lord one thousand nine hundred and four and of the Independence of the United States of America the one hundred and twenty-ninth.

[Seal]

F. I. ALLEN,  
Commissioner of Patents. [632]

A. M. M.  
ccm.



[THOSE PORTIONS OF THIS EXHIBIT WHICH ARE DUPLICATED IN COMPLAINANT'S EXHIBIT No. 3 ARE OMITTED HEREFROM.] [633]

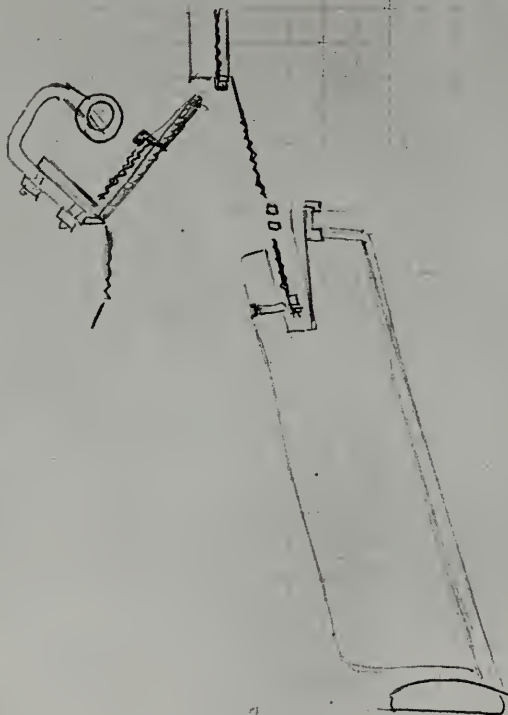
[Endorsed]: 207, N. D. Stebler v. Pioneer Fruit Co. Defts. Exhibit 25. Filed June 29th, 1911. Wm. M. Van Dyke, Clerk. Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Compls. Exhibit No. 14. Filed July 15, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. [634]

Porterville Citrus Association  
 Defendant's Exhibit "X."

Ex. 10

Porterville Citrus

Nov. 12, 1916



Slits	No. 125X
Porterville	N.D.
Ex. 10	
EXHIBIT	
Page No. X	
Filed July 12, 1916	
Wm. M. Van Dyke, Clerk	
By <i>Charles H. Cooley</i>	DEPUTY CLERK

**Defendant's Exhibit "A"—File Wrapper and  
Contents of Stebler Patent.**

Stebler vs. Porterville Cit. Assn. No. A-44, N. D.  
Defts. Exhibit No. "A." Filed July 12, 1916. Wm.  
M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy  
Clerk.

UNITED STATES OF AMERICA,  
Department of the Interior,  
United States Patent Office.

To All to Whom These Presents Shall Come, Greet-  
ing:

THIS IS TO CERTIFY that the annexed is a true  
copy from the Records of this Office of the File  
Wrapper and Contents in the matter of the

Letters Patent of  
Fred Stebler,

Number 943,799,                      Granted December 21, 1909  
for

Improvement in Distributing Apparatus.

IN TESTIMONY WHEREOF I have hereunto  
set my hand and caused the seal of the Patent Office  
to be affixed at the City of Washington, this 22d day  
of June, in the year of our Lord one thousand nine  
hundred and sixteen and of the Independence of the  
United States of America the one hundred and forti-  
eth.

[Seal]

R. F. WHITEHEAD,  
Acting Commissioner of Patents.

(Documentary Stamp 10¢. Canceled Jun. 22,  
1916.) [636]

## NUMBER (SERIES OF 1900).

432548

1908

DIV. 25

(EX'R'S BOOK) 42-209

PATENT No. 943799

Name—Fred Stebler.

of Riverside.

County of

State of California.

, 190 Invention—Distributing Apparatus.

		ORIGINAL	RENEWED
Division of App., No	PARTS OF APPLICATION FILED	Petition	May 12, 1908 , 190
		Affidavit	“ “ , 1908 , 190
		Specification	“ “ , 1908 , 190
		Drawing 2 Sheets	“ “ , 1908 , 190
		Model or Specimen Not req'd,	190 , 190
		First Fee Cash	, 190 , 190
		“ “ Cert. \$15. May 12,	1908 , 190
		Appl. filed complete	“ “ , 190“ , 190
		<hr/>	
		Examined—J. H. Lightfoot Oct. 30/09	<del>, 19</del>
		Countersigned—W. W. Mortimer,	<del>, 19</del>
		For Commissioner	For Commissioner
		Notice of Allowance—Nov. 6,	1909 , 190
		Cert.	
		Final Fee <del>Cash</del> Dated Nov. 15	, 1909 , 190
		“ “ Cert. \$20—Nov. 20	, 1909 , 190
		Patented—December 21	, 1909
		Associate Attorney—	
		Attorney TOWNSEND, LYON & HACKLEY.	
		504 Merchants Trust Co. Bldg.	
		Los Angeles,	
		Cal.	

432548

1908

DIV. 25

Name

Serial No.

Patent No.

Date of Patent.

3 [637]

CERTIFICATE OF DEPOSIT.

\$15.—RECEIVED

MAY 12, 1908.

C

CHIEF CLERK. U. S. PATENT OFFICE.

Los Angeles, May 7, 1908.

Hon. Commissioner of Patents,

Washington,

D. C.

Dear Sir:

Enclosed herewith find application papers of Fred Stebler for United States Letters Patent on DISTRIBUTING APPARATUS. Please apply \$15.00 of the enclosed certificate of deposit No. 2945 as filing fee for same.

Kindly file, acknowledge receipt, and oblige,

Very respectfully,

TOWNSEND, LYON & HACKLEY.

H.

Encs. [638]



Serial No. 432,548. Paper No. 1/2.

MAIL ROOM.

MAY 12, 1908.

U. S. PATENT OFFICE.

### PETITION AND POWER OF ATTORNEY.

To the Hon. Commissioner of Patents:

Your petitioner Fred Stebler, a citizen of the United States residing at Riverside, in the County of Riverside, and State of California, whose post address office  $\Lambda$  is the same, prays that letters patent may be granted to him for DISTRIBUTING APPARATUS set forth in the annexed specification, and he hereby appoints the firm of TOWNSEND, LYON & HACKLEY & ~~KNIGHT~~ (the individual members of which firm are Francis M. Townsend, Frederick S. Lyon, George T. Hackley and Arthur P. Knight), of 504-7 Merchants Trust Company Building, Los Angeles, California, his attorneys, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to receive the patent and to transact all business in the Patent Office connected therewith.

FRED STEBLER.

### SPECIFICATION.

To All Whom it May Concern:

Be it known that [639] I, Fred Stebler, a citizen of the United States, residing at Riverside, in the County of Riverside and State of California, have invented a certain new and useful DISTRIBUTING APPARATUS, of which the following is a specification:

This invention relates to means for carrying or distributing fruit, and is more particularly designed for use in connection with a fruit sizer or grader, and has for its general object the provision of simple and efficient means whereby the several grades or sizes of fruits, such, for example, as oranges, may be conducted to wide bins suitable spaced along the floor of a packing-house so as to provide sufficient room at the sides of the bins for the fruit packers to work.

Another object of the invention is to provide a suitable distributing apparatus in connection with a short or small grader or sizer, thus enabling the use of a short sizer or grader and still deliver the separated or sized fruit in bins of such width as to provide easy access thereto for the packers.

In packing fruit, such, for instance, as oranges, it is very desirable to have the sized or graded fruit delivered in wide bins, so that two or more packers may work at the side of each bin, as it has been found that where fruit is being separated or graded it is liable to run mainly to two or three different sizes. It is much desired, therefore, to use wide bins which will enable two, or even more, packers to work at the side of a given bin in wrapping the fruit in papers and packing the same in the boxes. [640]

Heretofore it has been necessary either to provide a very large of long grader or sizer, so as to conduct the several grades of fruit some distance along the grader before being discharged into the bins, or to utilize smaller bins.Λ

Insert  
B'

B'

With these and such other objects in view as shall appear from the hereinafter contained de-

scription of the apparatus and its operation, the invention consists in the provision, in connection with a fruit sizer or grader such, for example, as the "California Grader" of Letters Patent of the United

to James Ish

Per A States A No. 458,422, dated August 25, 1891, or any other suitable grader, of a horizontally travelling conveyor so arranged that the conveyor is tilted sideways so as to extend slightly downward from the side of the grading or sizing machine, and in the provision, in connection with such conveyor, or guiding means arranged along the conveyor and in suitable relation to the several grading discharges of the separating means as to form ways through which the separated fruit is carried by said conveyor and thereby delivered to suitable bins arranged below and along such conveyor.

The invention consists further in the provision of means whereby such guiding means may be adjusted to deliver the given grade or size of fruit, either to any particular portion of the bin or to any one of several successive bins, so that in case the fruit being sized or graded runs very heavily of a given size or grade, such fruit may be delivered into a series of bins, thus enabling a large number of packers to have ready access to that size or grade of fruit and handle the fruit and pack the same as rapidly as graded or sized. [641]

A further object of the invention is to provide in connection with such fruit grader or sizer, and such conveyor and guiding means, removable and adjustable partitions in the bins so that the width thereof may be varied to suit the requirements.

Insert  
D'

Further objects and ends to be attained will be apparent from the construction and operation of my distributing apparatus as hereinafter described and shown in the drawings, wherein I have shown one embodiment of the invention, it being apparent that many modifications may be made without departing from the spirit or scope of the invention.

The invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which—

Figure 1 is a plan view of a distributing apparatus embodying my invention, the same being shown in connection with a double or two sided fruit grader or sizer, the fruit grader or sizer indicated in the drawings being the well known "California Grader," the main features and principles of which are set forth in the Ish Patent No. 458,422 before referred to, but, as indicated, instead of a flat belt, a round rope belt travelling in a groove is shown as the same has ordinarily been used in such California Grader; and the apparatus being duplicated to discharge fruit on both sides of such double grader.

Fig. 2 is a side elevation of such apparatus.

Fig. 3 is a cross sectional view on the line  $x^3-x^3$

Fig. 1. [642]

Fig. 4 is a cross sectional view on the line  $x^4$ —  
Fig. 1.

Fig. 5 is an enlarged, detail view of one of the guiding means, showing the telescopic construction thereof and manner of pivoting the same upon the supports thereof on the frame of the machine.

In the preferred form of the invention and in the embodiment shown in the drawings, the fruit grader or grading

per A A is mounted upon suitable standards 2 in the ordinary or any preferred manner, and such fruit grader is made up of a longitudinal divider 3 provided with a groove in which the grading belt or rope 4 travels. 5 (Fig. 3) indicates the grading roller. The construction of this longitudinal divider, grading rope and grading roller is commonly known

to Robert Strain  
per A in the art and is illustrated in patent A No. 730,412 of June 9, 1903, and I have, therefore, considered it not essential to more fully illustrate the same in the drawings herein. A

Insert  
A'

A' As indicated, the grading rope 4 is carried by suitable sheaves suitable mounted and driven. As shown in the drawings, two grading ropes and two grading rollers 5 are shown in the drawings, thus forming a double or two sides machine. As each side, however, is simply a duplicate of the other, I will describe only one of the two fruit distributing apparatus, A the [643] other being a duplicate.

Insert A<sup>2</sup> A<sup>2</sup> At one end of the frame of the machine I provide suitable standards 6 which, as shown, are mounted at an incline or angle so that the sheave 7 carried thereby is mounted so as to be inclined downwardly away from the grading element. The other end of the machine is provided with a sheave 8 whose axis or shaft 9 is arranged horizontally in suitable bearings in the standards 2 of the frame.

As indicated best in Fig. 1 of the drawings, the longitudinal travelling conveyor or belt 10 is carried



along under the grading element at such inclination, i. e., inclined downwardly away from the gradeway formed by the travelling belt and grading roller, but arranged under the same so that the fruit discharged from such gradeway falls onto the inclined travelling

per A. upper run of the conveyor. The A belt or travelling conveyor 10 is supported throughout the length of the machine by a bed 11 which extends at an angle inclined downwardly from the grading element toward the bins the width of the belt, and at a point beyond the length of the grading element I provide a hip 11' in this bed 11 underneath the travelling conveyor

per A. down and adapted to bring the conveyor A up into a horizontal position so that the belt or conveyor is delivered upon the sheave or pulley 8 in a horizontal position crosswise of the belt, thus providing for the belt travelling upon the sheaves 7 and 8 and preventing the same running off therefrom. At distances along the frame of the apparatus, corresponding to the several grades or sizes of fruit arranged to be discharged from the grading element, I provide a series of guiding means preferably made up in two sections 12, 13, the section 13 being pivotally mounted upon suitable bars or studs 14 of the frame of the machine. The section 13 is preferably of such form as to receive within it the section 12 so that the section 12 may be drawn out or pushed back within the section 13 [644] so as to bring the end of the guiding means at any point along the bin to which it is desired to deliver the given grade of fruit. The front end of the section 12 of

such guiding means is provided with a socket in which a suitable pin 14' may be placed, such pin being also inserted in one of the holes 15 along the edge of the bed 11. It is thus seen that by extending or contracting the telescopic guiding means, the point of delivery of the fruit from the belt may be

Insert A<sup>3</sup> adjusted as desired. A Underneath the

grading element I arrange a canvas 15 upon which the fruit from the grading element is adapted to drop or be delivered and by which such fruit is directed onto the travelling conveyor 10. Where a double grader is used, this canvas preferably extends from a point at the inner edges of the travelling conveyor 10 over a suitable support 16 arranged below the longitudinal divider 3. Underneath the apparatus and extending out beyond the sides thereof, I arrange a suitable frame adapted to receive the usual canvas false bottom. This frame is provided with a series of removable partitions 17 preferably so arranged that the position of the partitions may be varied as desired to provide fruit receiving bins positioned with respect to the grading element as desired and thus made of adjustable width so that bins for a particular grade may be provided of the size corresponding to the run of the fruit.

As shown in the drawings, these adjustable partitions 17 are provided with portions 18 adapted to be inserted in slots formed in the back wall of the bin frame, there being a suitable number of such back slots to provide suitable amount of adjustment. The front ends of the partitions 17 are provided with a portion 19 adapted to be inserted in slots 20

on the front wall of the bin frame. Preferably the removable partitions are held in place by a strip 21 lying upon the front wall of the [645] bin frame and secured in any suitable manner. The conveyors 10 are driven by driving one of the pulleys or sheaves 7, 8 in the ordinary or any preferred manner such, for instances, as pulley or sheave 22 from which a belt may pass to any suitable source of power.

Insert  
D<sup>2</sup>

In operation the fruit being discharged from the grading element onto the canvas 15 rolls onto the travelling conveyor between two of the adjustable guiding means which form a trough for the travel of the fruit. As the conveyor is inclined downwardly from the grading element and toward the bins, the longitudinal movement of the belt, assisted by gravity, carries the fruit through such trough and discharges the same at the end of the guiding element. It is readily seen that by this arrangement the fruit may be delivered to any portion of the bin as desired, and wide bins may be used so that a large number of packers may work at any one bin. [646]

Insert  
C'

Having described my invention, I claim:- \_\_\_\_\_

1. A distributing apparatus comprising a horizontally travelling conveyor, and guiding means arranged along the conveyor forming chutes to guide the fruit to the portion of the bin desired.

2. A distributing apparatus comprising a horizontally travelling conveyor arranged below a grading element, the conveyor being inclined downwardly away from such grading element, bins arranged below and along said conveyor, and guiding means arranged along the conveyor and providing chutes for directing the fruit to the bins.

3. A distributing apparatus comprising in combination with a grading element a horizontally travelling conveyor inclined downward away from said grading element, adjustable guiding means arranged along the conveyor and forming chutes for the discharged fruit, a distributing apparatus adapted for use with a grading machine and comprising a horizontally travelling conveyor arranged below the grading machine to receive the graded fruit therefrom, and adjustable means arranged along the conveyor and forming chutes for directing the separated fruit to the point of discharge from said conveyor.

4. In combination, in a distributing apparatus adapted for use in connection with a fruit grader or sizer and fruit receiving bins, of a horizontally travelling conveyor, a pulley or sheave for said conveyor mounted on an inclined axis and working in conjunction with a second pulley or sheave mounted upon a horizontal axis, a hip over which the conveyor travels as it approaches said horizontally mounted sheave, and guiding means

arranged along the conveyor and forming chutes for the fruit.

5. A fruit distributing apparatus adapted for use with a fruit grader or sizer and comprising a horizontally travelling conveyor, adjustable fruit bins arranged below said conveyor, and adjustable guiding means arranged along the conveyor and forming adjustable chutes for guiding the sized fruit from said grader to said bins.

In Testimony Whereof, I have hereunto set my hand at Riverside, California, this sixth day of May, 1908.

FRED STEBLER.

In presence of

DORA V. GAMBLE.

FREDERICK S. LYON. [649]

OATH.

State of California,  
County of Riverside,—ss.

Fred Stebler, the above-named petitioner, being duly sworn, deposes and says that he verily believes himself to be the original, first and sole inventor or discoverer of the DISTRIBUTING APPARATUS, described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used before his invention or discovery thereof; or patented or described in any printed publication in any country before his invention or discovery thereof, or more than two years prior to this application; or in public use or on sale in the United States for more than two years prior to this application, and that no application for patent on said invention has been filed by him or his legal representatives or assigns in any foreign country.

And said Fred Stebler states that he is a citizen



of the United States and resident of Riverside, in the County of Riverside and State of California, and that his full first name is "Fred."

FRED STEBLER.

Subscribed and sworn to before me, this 6th day of May, 1908.

[Seal]

WM. STUDABECKER,

Notary Public in and for the County of Riverside,  
State of California. [650]

T. F. M.

Paper No. 1—

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

ARM.

Div. 25. Room 315—

Address only

"The Commissioner of Patents,

Washington, D. C."

and not any official by name.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., June 25, 1908.

MAILED

" " "

Fred Stebler,

Care Townsend, Lyon & Hackley,

Los Angeles, Cal.

Please find below a communication from the  
your  
EXAMINER in charge of the application of #432,-  
548, Distributing Apparatus, filed May 12, 1908.

E. B. MOORE,

Commissioner of Patents.

The name of inventor should be supplied with other data of patents referred to in the specification, as page 2, lines 10, 11; page 4, line 14.

Claim 1 is rejected in view of 752,651, Camp, Feb. 23, 1904, Conveyors, Endless Belt. See also fig. 2 of British patent 13,765, Johnson, June 17, 1904, Washers. A bin is impliedly made part of the supposed combination; it should be directly recited if it is to be considered included.

Claim 2 should directly recite the grading element as an element of the supposed combination. Rejected as failing to distinguish patentably from 534,783, Ceruti, Feb. 26, 1895, Fruit and Vegetable Separators.

Claim 3 requires recasting, much of the same matter being twice recited.

Claim 4 should directly recite the grader and the bins as elements. [651]

Claim 5 is indefinite as to the adjustments. Bins may be adjusted in so many different ways that the term "adjustable" conveys no definite idea without further qualification. The relation between the adjustment of the bins and the adjustment of the deflectors should be brought out in the claim to establish a combination. Without it the 5th expresses a mere aggregation of features old in 775, Stebler, #432,548, 2—015, Strain, Nov. 15, 1904; and reissue 12459, Anderson, Feb. 27, 1906, Fruit and Vegetable Separators.

LEWIS B. WYNNE,  
Examiner, Div. XXV.

T. F. MITCHELL. [652]

Serial No. 432,548. Paper No. 2.

MAIL ROOM.

OCT. 5, 1908.

U. S. PATENT OFFICE.

Div. 25,

Room 315,

Fred Stebler,

Distributing Apparatus,

Filed May 12, 1908,

Serial No. 432,548.

Los Angeles, Cal., Sept. 29, 1908.

Hon. Commissioner of Patents,

Sir:—

In response to Examiner's letter of June 25, 1908,  
we amend as follows:

<sup>A</sup> Page 2, line 11, before "No." insert—to  
James T. Ish—

<sup>A</sup> Page 4, line 7, after "grader" insert—or  
grading—

<sup>A</sup> Page 4, line 14, before "No." insert—to  
Robert Strain—; line 16, after "herein" insert—

<sup>A</sup> Said grading element is adjusted to deliver or  
discharge fruit of different grades at different  
longitudinal portions thereof—

<sup>A<sup>2</sup></sup> Page 5, line 1, after "duplicate" insert—The  
fruit distributing means comprises supporting  
and guiding means, namely, the conveyor 10,  
and guide means 12, 13, arranged alongside of  
the grading element and adjusted to receive the

fruit therefrom and to deliver the same at longitudinally distributed points, for example to a series of bins. The machine is of especial advantage in delivering to a series of bins where longitudinal extension is greater than that of the grading element, thereby giving more room for the packers, and for that purpose the distributing means is constructed so that its delivery portion is of greater longitudinal extension than the grading element—

---

Page 5, line 14, before “belt” insert—~~the~~

---

^ upper run of the— [653]

Page 5, line 20, change "up" to -- down --

Page 6, line 8, after "desired" insert --

In general, when the series of bins is longer than the grading element, the guides 12, 13 will diverge outwardly and will all be directed obliquely forward and outward.

In view of the objections to the form of the claims,

rewrite the claims as follows:-

--1. The combination with a fruit grading element constructed to deliver fruit at different longitudinal portions, travelling of supporting and distributing means extending laterally from the grading element conveyor and inclined downwardly away therefrom, the longitudinal extension of the delivery portion of the said distributing means being greater than the longitudinal extension of the grading element.

2. In combination with a grading element constructed to deliver fruit at different longitudinal portions, a distributing apparatus therefor comprising a conveyor traveling longitudinally of the grading element, and guiding means arranged along the conveyor forming chutes to guide the fruit, and bins arranged along the length of said conveyor and at the sides thereof.

3. The combination with a grading element adapted to deliver graded fruit at different longitudinal portions of the element, a series of bins whose longitudinal extension is greater than the longitudinal extension of the grading element, arranged along the side of said conveyor along said conveyor and guiding means for guiding the fruit from the grading element to the series of bins.

4. The combination with a grading element and a series of bins, of a conveyor traveling longitudinally under of the grading element and along the side of the series of bins, and guiding means arranged along the conveyor to guide the fruit from the grading element to the bins, said guiding means diverging towards the bins.




5. The combination with a grading element adapted to deliver graded fruit at different longitudinal portions of the element, a series of bins whose longitudinal extension is greater than the longitudinal extension of the grading element, guiding means for guiding the fruit from the grading element to a series of bins, and means for adjusting the longitudinal position of the outer ends of said guiding means.

6. A distributing apparatus comprising, in combination with a grading element, a horizontally traveling conveyor inclined downward away from said grading element, bins arranged below and along said conveyor, and guiding means arranged along the conveyor providing chutes for directing fruit to the bins.

7. In combination with a grading element, a distribution apparatus therefor comprising a conveyor traveling horizontally and longitudinally of the grading element and inclined downward away from said grading element, and guiding means arranged along the conveyor and forming chutes for the discharged fruit, said guiding means being adjustable longitudinally of the conveyor.

8. A distributing apparatus for the grading element comprising a horizontally travelling conveyor and guide means arranged along the conveyor and forming chutes for directing the graded fruit to the point of discharge from said conveyor, said guide means being adjustable to shift the point of discharge longitudinally of the conveyor.

9. <sup>a</sup>  
 distributing apparatus for a fruit grader or sizer comprising a horizontally traveling conveyor, a pulley for said conveyor mounted on an inclined axis and a second pulley mounted on a horizontal axis, the conveyor being extended between and passing over said pulleys, a bed supporting the upper run of said conveyor and provided with a hip over which conveyor travels

Sub  
B<sup>3</sup>Sub  
B<sup>4</sup>Sub  
B<sup>5</sup>Inser  
B<sup>6</sup>

as it approaches said horizontal pulley, and guiding means arranged along the conveyor forming chutes for the fruit.

10. The combination with a fruit grading element and a series of bins, or a distributing apparatus therefor, comprising a horizontally traveling conveyor, a pulley for said conveyor mounted on an inclined axis and a second pulley mounted on a horizontal axis, the conveyor being extended between and passing over said pulleys, a bed supporting the upper run of said conveyor and provided with a hip over which conveyor travels as it approaches said horizontal pulley, and guiding means arranged along the conveyor forming chutes for the fruit.

11. The combination of a fruit grading element and a series of bins, the walls of said bins being adjustable longitudinally of the series, and a distributing apparatus comprising a conveyor traveling longitudinally between the fruit grading element and the bins, and guide means arranged along the conveyor and forming chutes for guiding the fruit from said conveyor to said bins, said guide means being adjustable to shift the longitudinal position of their outer ends in accordance with the longitudinal positions of the walls of the bins.

Insert B<sup>7</sup> 12. <sup>a</sup>~~AB~~ distributing apparatus comprising fruit supporting means outwardly and downwardly inclined from one side to the other, and guide means extending obliquely across the supporting means, each guide/<sup>means</sup> comprising telescoping members.

Insert B<sup>8</sup> 13. <sup>a</sup>~~AB~~ distributing apparatus comprising fruit supporting means outwardly and downwardly inclined from one side to the other, guide means extending obliquely across the supporting means, each guide means comprising telescoping members, and means for adjusting the longitudinal position of the outer ends of said members.

Insert B<sup>9</sup> Insert B<sup>10</sup>

REMARKS.

The patents cited do not show the distributing means of greater longitudinal extension than the grading element, nor the adjustability of the guiding means. The purpose of both these features is set forth in the specification.

Allowance is requested.

Very Respectfully,

TOWNSEND, LYON & HACKLEY,

Attys. for Stebler.

APK-H. [657]

T. F. M.

Paper No. 3.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

Div. 25. Room 315.

Address only

“The Commissioner of Patents,

Washington, D. C.”

and not any official by name.

MEC.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., Oct. 30, 1908.

MAILED “ “ “

Fred Stebler,

c/o Townsend, Lyon, Hackley,

Los Angeles, Cal.

Please find below a communication from the  
your

EXAMINER in charge of the application of No.

432,548, filed May 12, 1908, for Distributing Apparatus.

E. B. MOORE,  
Commissioner of Patents.

Case as amended Oct. 5, 1908, further considered.

Claim 1 is rejected in view of 352,421, McKenzie, Nov. 9, 1886, Fruit and Vegetable Separators.

Claim 2 is rejected in view of 775,015, Strain, of record—see 41, 42, 43 and 44 thereof.

Claim 3 is rejected in view of McKenzie cited.

Claim 4 is rejected in view of Strain of record.

Claim 5 fails to define the scope of the adjustment of the partitions. Mere adjustment of McKenzie's guides would not involve invention in view of Camp or Strain of record. The 5th claim is rejected in view of these references.

Claim 6 is rejected in view of McKenzie and the lower flight of Strain's conveyer, the inclination away from the conveyer being without significance in the absence of further recital if, indeed, it amounts to more than a purely arbitrary variation.

Claims 7 and 8 are rejected in view of Strain, the guiding means being the parts 36.

The 8th, 9th, 12th and 13th cover a conveyer or distributor pure and simple, and, unless the fruit grader element be added, [658] division will be required as between said claims and those including the grader.

LEWIS B. WYNNE,  
Examiner, Div. XXV.

T. F. MITCHELL. [659]

Serial No. 432,548. Paper No. 4.

Filed

190

U. S. PATENT OFFICE,

JAN. 27, 1908.

DIVISION XXXII.

MAIL ROOM.

JAN. 26, 1909.

U. S. PATENT OFFICE.

PATENT OFFICE.

JAN. 29, 1909.

DIVISION XXV.

IN THE UNITED STATES PATENT OFFICE.

In the Matter of the Application of FRED STEBLER,

DISTRIBUTING APPARATUS,

Filed May 12, 1908.

Serial Number 432,548.

Commissioner of Patents,

Sir:

This application has been carefully reconsidered in connection with the official letter dated October 30, 1908. In view of the objection to form, we amend as follows:

Specification, page 2, add at the end of line 5:

B' With this invention it is possible to use a relatively short grader or sizer and utilize a distributing conveyor, and to carry the separated and sized fruit to bins of the desired width extended much beyond the length of the grader and arranged at the sides of the conveyor.



Claim 1, line 3, before "supporting," insert—  
 B traveling—Line 4, change "conveyor" to—  
grading element—

Claim 2, add at end—and bins arranged along  
 B the length of said conveyor and at the sides  
thereof.

Claim 3, line 4, after "element" insert—ar—  
 B ranged along the side of said conveyor—Line 3,  
after "element" insert—a traveling conveyor  
 B<sup>2</sup> extending longitudinally under said grading ele-  
ment and extending beyond the end thereof.

B Line 5, after "fruit" insert—along said con-  
veyor and—

Claim 4, line 4, cancel "from the grading ele-  
ment." Line 2, change "of" after longitudi-  
 B nally to—under—Line 3, before "of the series,"  
insert—along the side. [660]

For claim 5 substitute the following:

5. In combination with a fruit grader com-  
 prising a suitably mounted member and a trav-  
 eling belt arranged adjacent to said member so  
 as to form the way or chute, for the fruit, a  
 B<sup>3</sup> series of bins whose longitudinal extension is  
 greater than the longitudinal extension of the  
 grader, a traveling conveyor arranged under  
 said fruit grader and extending at the side of

said series of bins, guiding means for guiding the fruit along said conveyor to said bins, and means for adjusting the longitudinal position of the outer ends of said guiding means, and thereby determine the portion of said bins to which the graded fruit is delivered.

---

For claim 7 substitute the following:

---

B<sup>4</sup> 7. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt forming the way or chute for the fruit to travel along and thereby be graded by gravity, a traveling conveyor arranged thereunder and of greater length than said grader, a series of bins arranged at the side of said conveyor and means in conjunction with said conveyor for directing the fruit along said conveyor to the respective bins.

---

For claim 8 substitute the following:

---

B<sup>5</sup> 8. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming therewith the grading way or chute for the fruit to pass along and be graded by gravity, a traveling conveyor arranged thereunder, a series of bins arranged along the side of said conveyor, an adjustable guiding means arranged along the conveyor and forming a chute for directing the graded fruit from the point of discharge from said [661] conveyor into said bins, said guiding means being ad-

justable to shift the point of discharge longitudinally of the conveyor.

---

Claim 9, change the first word, "A" to a small  
—a—and insert before the same the following:

---

B<sup>6</sup> In combination with a grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and be separated or assorted by gravity—

---

Claim 12, change the first word to a small "a"  
and insert theretofore the following: In com-  
B<sup>7</sup> bination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and be separated or assorted by gravity—

---

Claim 13, change the first word to a small "a"  
and insert before the same the following: In  
B<sup>8</sup> combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and be separated or assorted by gravity—

---

Insert the following as claim 14:

---

14. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming a grading way or chute for the fruit to pass along and be separated or assorted by gravity, a series of bins, a distributing apparatus therefor comprising a conveyor traveling longitudinally of the grading element and guiding means arranged along the conveyor forming chutes to guide the fruit to said bins. [662]

---

Claim 15.

---

15. In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming a grading way or chute for the fruit to pass along and be separated or assorted by gravity, of traveling separating and distributing means extending under said fruit grader and inclined downward away therefrom, the longitudinal extension of the delivery portion of said distributing means being greater than the longitudinal extension of said grader, and a series of bins arranged along said distributing means.

---

Insert  
C<sup>2</sup>

NOTE.

It is believed that with this amendment the application is placed in condition for allowance.

The reference to the patent to McKenzie should be withdrawn as both the grading means and the distributing means shown in this patent are gravity

devices, that is, depend upon gravity to carry the fruit along, while each of the claims presented calls for a traveling conveyor as a part of the distributing mechanism.

None of the claims are met by the patent to Strain, for the reason that the parts 41, 42, 43 and 44 of Strain's apparatus are in no wise connected with the grading mechanism. These parts are used simply by the operator whose duties it is to pick off or assort the damaged fruit or culls and place them upon the lower leg of the belt which conveys them to the cull bins. This portion of the mechanism is not in mechanical co-operation with the grading element, and hence neither meets the invention of applicant nor the spirit of the claims presented.

Respectfully submitted,  
TOWNSEND, LYON & HACKLEY,  
Attorneys for Stebler. [663]



T. F. M.

Paper No. 5.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

Div. 25. Room 315.

Address only

“The Commissioner of Patents,

Washington, D. C.,”

and not any official by name.

MEC.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., Feb. 3, 1909.

MAILED “ “ “

Fred Stebler,

c/o Townsend, Lyon and Hackley,

Los Angeles, Cal.

Please find below a communication from the EX-  
your  
AMINER in charge of the application of No. 432,548,  
filed May 12, 1908, for Distributing Apparatus.

E. B. MOORE,

Commissioner of Patents.

Case amended Jan. 26, 1909, further considered.

Claims 1, 2, 3 and 4 express merely the substitution for the series of chutes of 741,928, Rayburn, Oct. 20, 1903, Fruit and Vegetable Separators, of a conveyor such as that of 731,828, White, June 23, 1903, same subclass; or 749,459, Stevens, June 23, 1903, Measuring Instruments, Gages, Assorting. Note that Stevens' guides may be adjusted so as to

omit the assorting function and constitute the device a conveyor merely. The claims specified above are rejected in view of said references.

Claims 6 and 7 are rejected in view of the same references.

Claims 14 and 15 are rejected in view of the same references. The lateral inclination of the conveyor is an adjustment within the range of ordinary skill and judgment.

LEWIS B. WYNNE,  
Examiner, Div. XXV.

T. F. MITCHELL. [664]

MAIL ROOM. Serial No. 432,548. Paper No. 6.  
APR. 2, 1909.

U. S. PATENT OFFICE. PATENT OFFICE.  
APR. 3, 1909.

Div. 25. DIVISION XXV.

Room 315,

FRED STEBLER,

DISTRIBUTING APPARATUS,

Filed May 12, 1908,

Serial No. 432,548.

Los Angeles, Cal., March 27, 1909.

Hon. Commissioner of Patents,

Washington,

D.C.

Sir:—

In response to Examiner's letter of February 3, 1909, we amend as follows:—

Specification, page 7, add at end—

---

It is much preferable to slightly incline the

c conveyor 10 downward toward the bins. If the conveyor 10 is arranged horizontal and not inclined, the fruit must be forced into contact with the guiding means 12, 13 and this forcible and continuous contact will cause abrasion of the tender skins of fruit, such as oranges, and cause the rapid decay thereof. By inclining the conveyor the downward pitch is utilized to cause the oranges to roll toward the outer or discharge edge of the conveyor preventing the continued forcible contact with the guiding means which would occur were the conveyor flat or horizontal in cross section. When the conveyor is arranged flat the oranges are carried to the guiding means at the rear or most advanced side of the chute thereby formed and the continued movement of the conveyor holds the oranges in forcible contact against such guiding means as the oranges are carried across the width of the belt along the guiding means. [665]

---

Add the following claims:

---

C<sup>2</sup> 16. In combination, a grading element and a distributing apparatus therefor, and bins arranged at the side of the distributing apparatus, said distributing apparatus comprising a conveyor traveling horizontally and longitudinally of the grading element and under the same, guiding means extending transversely of the conveyor and forming separated chutes for the fruit and opening into respective bins.

17. A grading element and fruits bins, in

combination with a conveyor of greater length than the grading element, and extending alongside said fruit bins, and guiding means, on the surface of said conveyor and forming separated chutes for the separated and sized fruit, extending transversely of the conveyor.

---

Insert D<sup>3</sup>

### NOTE.

The relevancy of the patents to Rayburn, White and Stevens is not apparent and if upon reconsideration the Examiner adheres to his action of February 3d, 1909, he is requested to point out how either of the devices of these patents could be used to perform the function of applicant's apparatus and also how such function could be performed in the manner in which applicant performs it.

The erroneous character of the Examiner's action will be apparent by reflecting upon the principle of law that a device which will not perform the function of a given invention is not an anticipation of such invention. In other words, [666] a device which will not perform the function of a given device and perform it in the same manner as the latter device, does not show that the later device is not new.

The question of whether applicant's alleged invention is novel is to be judged by what the prior art actually shows. We use the term "novel" in the sense of the Patent Law as distinguished from patentable. "Patentability" depends upon whether the device falls within the classes of invention for which patents may be granted. "Novelty" depends upon newness. If a new mode of operation is se-

cured, or if the device performs its function in a different manner, or performs a different function, it is not anticipated by a given prior device.

In the present case it is clear, and the Examiner practically admits, that the device of the Rayburn patent will not perform the function of applicant's invention, nor will it perform the function of applicant's invention in the manner in which such function is performed by applicant's device. It is clear, therefore, that the Rayburn patent is not an anticipation of applicant's device, nor is it an anticipation of any one of the claims submitted.

Let us consider for a moment whether this last statement is true in fact. Referring to the specification filed by applicant it is found that one of the primary objects and purposes to be accomplished by applicant's device is to permit an extension of the bins longer than the extension of the grading element, so that it is possible to use a relatively short grader and sizer and utilize a distributing conveyor to carry the separated and sized fruit to bins of a desired width extended much beyond the length of the grader and arranged at the sides of the conveyor. The practical advantages of [667] such an apparatus are set forth in the last paragraph of page 1 of applicant's specification.

The device of the Rayburn patent is one of which applicant has long been familiar. In fact applicant and his partner, Austin A. Gamble, are the owners of the Rayburn patent, but the device of the Rayburn patent is not adapted for the use for which applicant's present invention was designed and intended.



It is clear, therefore, that the Rayburn patent, standing alone, is not an anticipation of any one of the claims. In fact it is impossible to read any one of the claims upon the Rayburn patent.

“It is not sufficient, to constitute an anticipation, that the devices relied upon MIGHT, by a process of modification, reorganization, or combination with each other, be made to accomplish the function performed by the device of the patent sued on.” Says the Circuit Court in *ESTERN ELECTRIC CO. v. HOME TELEPHONE CO.*, 85 Fed. 649.

In discussing this doctrine, the Court further says:

“The force of this ruling is made manifest, in its practical application to the rights of the parties, by the reflection that all earlier patents set up in defence against a later patent sued upon are but the record evidence of the state the art has reached. The rights under such later patent are subject to what this record actually shows. To change this record, by permitting theoretical modifications of these earlier patents, would be the same, in force, as to change, by interpolations or modifications, any other evidence between the parties.” [668]

In other words, applicant's right to a patent is to be judged by what each one of the prior patents actually shows and not by a new combination of elements formed in the Examiner's mind by taking a portion of one of the devices of the prior patents and combining it with devices from another patent in a relation in which it is not shown in either of the patents,

thus forming what in law is known as a new combination. The Examiner in his action has utterly ignored the true rule of combination claims.

As said by the Circuit Court of Appeals for the Sixth Circuit, in YESBERA v. HARDESTY MFG. CO., 166 Fed. (No. 1), 120, 125:

“Now, when we remember that there are two classes of patents, one for simple elements, and another for combinations of elements, and the distinguishing characteristics of the two classes, it is readily seen how impossible it is to apply this language to the other class of patents than those of the class specified. In a combination patent there are no unpatented features in the sense that they are separable from patented ones, and no one of the elements is patented. They may all be old and not patentable at all unless there is some new combination of them. The point to be emphasized is that the law looks not at the elements or factors of an invented combination as a subject of a patent, but only to the combination itself as a unit distinct from its parts.”

After the Examiner has read over applicant's specification and studied applicant's drawings, the Examiner suggests that a mechanism having the interrelation of parts, mode of operation, and functions of the combinations of parts set forth in claims 1, 2, 3, 4, 6, 7, 14, and 15, respectively, could readily be produced. [669]

The very fact that the Examiner admits, as he does admit in the official action of February 3d, 1909,

that the patent to Rayburn does not show the inter-relation of parts, and mode of operation of the parts, to perform the functions of the combination of any one of these claims, is an admission that the Rayburn patent is not, within the rule of law before cited, an anticipation of any of these claims. But the Examiner says that a mechanism having the inter-relation of parts, mode of operation and function of the respective combination of these respective claims, could readily be produced by substituting for the series of chutes of Rayburn a conveyor such as that of White or Stevens. In other words, take and change what the record of the art is, i. e., the device of the Rayburn patent, by interpolating into such record by substituting White or Stevens conveyor for the chutes of Rayburn. This is clearly not judging the novelty of applicant's combination by what the record actually shows, but is judging the novelty by an interpolated or mentally constructed record which does not in fact exist and is clearly within the inhibition of the rule of law before cited.

See, also,

Gunn v. Bridgeport Brass Co., 148 Fed. 239;

Topliff v. Topliff, 145 U. S.;

Ryan v. Newark Co., 96 Fed. 100;

Simons R. M. Co. v. Hathorn Mfg. Co., 90 Fed. 201, 208.

This rule of law is well established, and we request the Examiner's most careful consideration thereof, as we desire a final action upon the claims of this case to avoid delay.

It is always easy after the thing has been done to

see how it could be done. Applicant does not claim that he is the original or first inventor of any one of the elements utilized in the combination. All of them are, undoubtedly, old. But [670] the combination of each of the claims is new.

Prophecy after the fact is easy. But why was it that no one produced this necessary improvement if it was obvious? When the Examiner comes to making this substitution and reorganization he is forced to admit that it is only by adjusting the guides of Stevens so as to omit the function for which Stevens provided the guides, to wit, assorting and use as the conveyor in a relation and for a purpose in which neither Stevens or Rayburn show it, and for a purpose for which it was not designed or intended to accomplish, and to perform a function in its new combination, which it does not perform in its old relation, that the Examiner can approximate the new combination of any one of the claims under submission. Stevens' conveyor is a part of his grading element.

The device of the White patent, 731,828.

The first object of this device is to separate the sound from the unsound cranberries. No such function is accomplished by the mechanism of applicant's apparatus and it is impossible to compare any portion of the White machine which is designed for performing this operation with any portion of applicant's apparatus.

The separating according to sizes is accomplished by means of parallel screw conveyors 55. (Specification page 2, line 115 et seq.) In connection with

this separating or sizing mechanism no distributing and conveying mechanism dependent on a longitudinally moving belt is shown or described. Nor could any be utilized.

The White device has no pertinency whatever to the claims of applicant.

If the Examiner, upon a more careful and a comprehensive examination of the White patent, still believes such patent has any pertinency whatever as a reference, he is requested to point out the portion of such device which is relied upon [671] by him and to explain the pertinency thereof.

This request is made in accordance with the rules and to enable applicant to fully comprehend the Examiner's position and thereby be able to meet it. It is not made captiously or to add any burden to the Examiner's labors. The White mechanism is so different from applicant's in construction, interrelation of parts and in the mode of operation that the absolute lack of any pertinency whatever as a reference should be apparent.

To combine some portion of this mechanism with some other mechanism with which White neither shows nor described it, and to thereby create a new combination, is not to judge the novelty of applicant's combination by what White shows but to create a mental combination not suggested or shown by White. Applicant does not contend that any of these elements are new, *but the combinations of elements in the relation* utilized by applicant *are new*.

The Stevens patent 749,459.

This patent relates to devices in a totally different



art. There is no similarity whatever between automatic cartridge loading machines and fruit-packing machinery. Furthermore, the character of the merchandise to be handled is totally different and each art presents problems not found in the other.

There is no danger of bruising the extremely delicate skins of cartridge wads. There is no liability of causing their decay by rough handling. The cartridge wads are of much different form and size from that of fruit, such as oranges.

It is well settled that a device must either be in the same or an analogous art to be pertinent as a reference. A device from a non-analogous art can constitute an anticipation only under the doctrine of "double use." Of course, to take [672] an old device from one use and apply it to another use or art *without change* does not constitute invention. But the rule does not extend to any use where a remodeling of the device is required to make it adapted to the new use. The doctrine of "double use" does not include any use, of a device of one art, in another, where the elements must be re-arranged, nor does it include the taking of a portion of an old combination from one art and combining that, in a new relation in an art in which it has not *bee* used, with other devices.

Upon authority it is clear that this Stevens patent has no relevancy whatever when judging applicant's right to a patent in the art in which applicant is working. If the Examiner desires to consult the rules of law we shall be pleased to refer him to the authorities. A very good treatise upon the doctrine

of "Double Use" will be found in Robinson on Patents.

The Examiner admits that the Stevens patent, even if it were in analogous or the same art, does not show any one of the *combinations* claimed by applicant.

Under the rules of law constituting the doctrine of "Double Use" this shows conclusively the immateriality of the Stevens device as a reference. But this is not all. The admission of the Examiner, supported as it is in fact, that the Stevens device cannot be used for applicant's purpose shows the lack of relevancy of the Stevens patent as showing the combination of any one of applicant's claims. Try to read any one of them on the Stevens patent and no further argument is needed. No pointing out the utter failure to disclose *the claimed combination is necessary*.

If it were proper to combine old devices by taking a part from one patent and a part from another patent it would be possible to anticipate every invention which resides in a combination of old elements, regardless of the new function, or mode of operation, or more facile or economical [673] construction or operation. Clearly such procedure cannot be justified on authority, for it is well established that "a patent for a combination cannot be defeated by showing that each of its elements, separately considered, is old, but it must be shown that *the combination* is old."

GORMULLY v. JEFFREY CO. v. STANLEY  
CYCLE CO., 90 Fed. 299.

Furthermore, it must always be borne in mind that "a combination is not unpatentable merely be-

cause its results may also have been produced by other combinations.”

DEERE & CO v. ROCK ISLAND PLOW CO.,  
82 O. G. 1561, 1564 (C. C. A., 7th Circuit).

Final action is requested, as applicant desires to avoid delay and would prefer to take an immediate appeal in case the Examiner adheres to the line of action heretofore taken in this case.

Respectfully,  
TOWNSEND, LYON & HACKLEY,  
Attys. for Stebler.

FSL-H. [674]

Serial No. 432,548. Paper No. 7.

MAIL ROOM.

APR. 5, 1909,

PATENT OFFICE.

U. S. PATENT OFFICE. APR. 6, 1909.

DIVISION XXV.

Div. 25,

Room 315,

Fred Stebler,

Distributing Apparatus,

Filed May 12, 1908,

Serial No. 432,548.

Los Angeles, Cal., March 30, 1909.

Hon. Commissioner of Patents,

Washington,

D. C.

Sir:—

Upon further reconsideration of the above application, we amend as follows:—

Page 3, of the specification, add at the end of the first paragraph—

---

D' By thus providing bins whose longitudinal extension may be adjusted with respect to the longitudinal extension of the conveyor of the distributing apparatus, it is possible to provide the necessary bin room for all of the different sizes or grades of the fruit regardless of the run of the fruit. In packing oranges it is often found that the run of the fruit is particularly heavy to one or two given grades or sizes and it is essential in practical use to be able to provide sufficient bin room for the sizes or grades of which there are the greatest number of oranges in a given run. This has been found to be one of the great difficulties which have heretofore existed with all apparatus where machinery has been used in sizing or grading oranges, and it is one of the important objects of this invention to provide means which will accomplish this result without interfering with the grading or sizing and at the same time permit the compact installation of the machinery and the ready access to the bin room by the packers. [675]

---

Page 7 of the specification, after line 5, insert—

---

By thus providing means whereby the longitudinal extension of the bins, with respect to the conveyor, may be adjusted to suit the run of the fruit, the bin room and the distribution

D<sup>2</sup> of the sized fruit is wholly within the control of the operator of the apparatus, and it is possible to so deliver the fruit that immediate and ready access can be had thereto by packers in sufficient number to readily and quickly handle and pack the sized fruit.

---

Add the following claims:

---

D<sup>3</sup> 18. In combination, a grading element and a distribution apparatus, therefor, bins arranged at the side of the distributing apparatus, said bins provided with movable partitions whereby the widths of the bins along the distributing apparatus may be adjusted, said distributing apparatus comprising a conveyor traveling horizontally and longitudinally of the grading element and under the same, and guiding means extending transversely of the conveyor and forming separated chutes for the fruit and opening into respective bins.

19. A grading element, in combination with a distributing apparatus comprising a horizontally traveling conveyor inclined downward away from said grading element, guiding means arranged along the conveyor providing separated chutes for directing the fruit, and bins arranged below and along side said conveyor, said bins provided with movable partitions whereby the width of the bins may be adjusted with respect to the longitudinal extension of said conveyor.

20. The combination with a grading element



and a series of bins, or a conveyor traveling longitudinally under the [676] grading element and along the side of the series of bins, and adjustable guiding means arranged along the conveyor to guide the fruit to the bins, said guiding means diverging toward the bins, said bins provided with movable partitions whereby the longitudinal extension of the respective bins may be adjusted with relation to the length of the conveyor.

---

#### NOTE.

Action upon the foregoing claims is requested at the same time that action is had upon the case as amended by our amendment dated March 27th, 1909,

We call the Examiner's particular attention to the feature of applicant's apparatus which provides the longitudinally adjustable bins in connection with the distributing apparatus. One of the particular features of this apparatus, and one upon which its commercial value depends to a great extent, is the interrelation of the longitudinally adjustable fruit bins in connection with the adjustable guiding means on the conveyor. By these means, no matter what the run of fruit is, a sufficient bin space for the given sizes is always at hand. This is of extreme practical value in separating oranges according to their size, and applicant is entitled to claims fully covering these features.

In connection with the remarks appended to our amendment dated March 27th, 1909, we desire that the Examiner in reconsidering this application bear

in mind the rule of law [677] which is thoroughly well established that

“A device relating to one art is not anticipated by a like device taken from an entirely foreign art, where the latter was not intended by its maker, or actually adapted, to perform the functions of the former.”

Moore v. Shaw, 118 Fed. 602.

The Stevens device was neither intended for sizing fruit nor for distributing the sized fruit to bins at which the packers worked. The Stevens device could not be used without reconstruction and remodeling.

You could not size and distribute oranges by the Stevens device, in the manner in which this function is performed by applicant's apparatus, regardless of the size and proportions of this Stevens device.

Furthermore, this is a function which Stevens did not have in mind, for which his device was not intended, and a function for which the apparatus as designed by Stevens could not be used.

It is clear that the Stevens device is not in law an anticipation of any portion of applicant's conception,—that it is wholly foreign to applicant's invention.

It is submitted that all of the claims now standing in the case are allowable, and a final and comprehensive action is requested.

Respectfully submitted,

TOWNSEND, LYON & HACKLEY,

Attys. for Stebler.

TFM.

Paper No. 8.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

MEC.

Div. 25, Room 315.

Address only

“The Commissioner of Patents,

Washington, D. C.”

and not any official by name.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., April 28, 1909.

MAILED “ “ “

Fred Stebler,

c/o Townsend, Lyon and Hackley,

Los Angeles, Cal.

Please find below a communication from the  
your

EXAMINER in charge of the application of No.  
432,548, filed May 12, 1908, for Distributing Appa-  
ratus.

E. B. MOORE.

Commissioner of Patents.

Case as amended April 2 and 5, 1909, further con-  
sidered.

Rayburn plainly shows the combination of a fruit  
grading element with laterally and downward ex-  
tending distributing means (3, 4,) for delivering the  
separated fruit to a series of bins. This series of  
bins, and the distributing means are plainly greater

than the longitudinal extension of the grading element. Indeed Rayburn appears to completely anticipate the 1st claim, which is rejected in view thereof.

Claim 2 expresses merely the substitution of a specifically different distributing means for the distributing means of Rayburn but not altering the combination. Stevens, Strain (fig. 8) and White of record, plainly shows distributors comprising traveling conveyers with guides forming channels thereon leading to the various points of delivery. To substitute such a distributor for Rayburn's would be but an interchange of equivalents which would not alter the combination or involve invention. Claim 2 is rejected in view of said references, as are also claims 3 and 4. [679]

Claim 5 may be allowed, as at present advised.

Claim 6 is rejected in view of the references for claims 2-4, the inclination of the conveyer being but an arbitrary change to form, destitute of invention.

Claim 7 is rejected as being for an aggregation of a specific grader and a specific distributing conveyer, no combinative relation appearing between the two specific devices. The grader is practically disclaimed in the second paragraph of page 2; and it obviously does not involve invention to substitute old grading elements and old distributing elements for the equivalent elements in the old combination shown in Rayburn.

Claim 8 is for a similar aggregation, unpatentable irrespective of any supposed novelty either of

grader or distributor. The application of the specific distributor specified in the 8th claim, which goes somewhat beyond the capabilities of Rayburn's, to a fruit grader generically *may* be patentable; but as applied merely to a specific grader it is for a simple aggregation unless applicant can establish a combinative relation between the specific grader and the specific distributor. The 8th is rejected for the reason stated.

Claims 9, 12 and 13, are rejected upon the same ground, as are claims 14 and 15. Claims 14 and 15 are also rejected in view of the references for claims 2-4, and 458,422, Ish, August 25, 1891, Fruit and Vegetable Separators, showing the specific grader.

Upon review, the examiner has felt compelled to revise his favorable views as to certain of the claims in view of the too specific recital of the grader. If the specific distributor be novel in connection with fruit graders, it appears to be novel in connection with them generically rather than in connection with a specific grader, especially when the latter is confessedly old.

Claims 16 and 17 are rejected upon the references for claims 2-4. [680].

The 18th and 19th are rejected as being for aggregations, there being no combinative relation brought out in these claims (432,548-3) between the specific distributor and the specific bin.

The 20th is rejected upon the same ground. However, if the adjustability of the guiding means be defined in its relation to the adjustability of the bin partitions, the claim probably would be allowed.



In view of applicant's request that this action be made final, made in the paper filed April 2, 1909, and repeated in the paper filed April 5, 1909, this action may be treated as final for the purpose of appeal.

LEWIS B. WYNNE,  
Examiner, Div. XXV.

T. J. MITCHELL. [681]

Serial No. 432,548. Paper No. 9.

PATENT OFFICE.

JUN. 23, 1909.

DIVISION XXV.

IN THE UNITED STATES PATENT OFFICE.

In the Matter of the Application of FRED  
STEBLER,

“Distributing System.”

Serial Number 432,548;

Dated May 12th, 1908;

DIVISION 25.

Room 315.

Paper # 9.

Los Angeles, Cal., June 16th, 1909.

COMMISSIONER OF PATENTS:

The Official Letter dated April 28th, 1909, has been most carefully considered, both by Applicant and Applicant's attorneys, in an earnest endeavor to ascertain the Examiner's exact meaning and position BUT WITHOUT ANY POSSIBILITY OF ASCERTAINING THEREFROM either what claims are now rejected or what the Examiner's real position in the case is. From the letter it appears that claim 5 may be allowed; certain other claims

are rejected; than the Examiner states:

“Upon review, the examiner has felt compelled to revise his favorable views as to certain of the claims in view of the too specific recital of the grader. If the specific distributor be novel in connection with fruit graders, it appears to be novel in connection with them generically rather than in connection with a specific grader, especially when the latter is confessedly old.”

BUT the official letter makes no application of these remarks and no action whatever is had upon claims 10 and 11.

It is impossible, therefore, for Applicant to appeal and a final reconsideration and specific action on each of the claims is requested. At the same time the Examiner is requested to give at least a modicum of consideration of the rules of patent law applicable to combination claims and in his re-consideration to *made* some application thereof to the claims and invention presented in this application. [682]

Applicant regrets the absolute necessity of spreading upon the records of this application verbatim quotations from the text books of Patent Law and from the decisions of the Courts in patent cases in order that the Examiner may have ready access thereto and may have no excuse whatever for not giving these rules of law that proper and intelligent consideration to which they are entitled and which they are presumed to receive from one occupying a quasi-judicial position. To this end, therefore, applicant most respectfully but insistently requests the

Examiner to not only carefully read but endeavor to apply the following rules of construction and substantive Patent Law to the issues, facts and claims of this application, in order that the Examiner may do justice, not only to the rights of this applicant, but also to himself as a public servant and properly discharge the duty he owes to such official capacity.

The first principle of patent law is that where the co-operative law of a combination differs from the co-operative law of another combination, the combinations are distinct and are separate inventions, and one will not anticipate the other. In other words where the principle of operation is different the combinations must necessarily be different, separate and distinct and are independent inventions and one cannot anticipate the other.

The application of this rule of law to the present application is apparent by referring to the first paragraph of the Official Letter of April 28th, 1909, which rejects claim 1 upon the patent to Rayburn. The device of the Rayburn patent operates upon gravity. This is the co-operative law of Rayburn's combination. Applicant's combination neither depends upon gravity nor utilizes gravity in its co-operative action. As we have heretofore called to the attention of the Examiner, the Rayburn patent is owned by applicant and his partner who are manufacturers of fruit packers' machinery. But the Rayburn apparatus is not adapted to the requirements set forth in pages 1 and 2 of applicant's specification, [683] and the objections to the Rayburn apparatus have been the cause of the production of

the invention set forth in the present application. The Rayburn apparatus requires more room, a higher packing-house room, is expensive to install and more important even, is the fact that the oranges roll rapidly down the spouts and acquire much momentum and when stopped come into forcible contact with the walls of the bins and with each other, bruising the extremely delicate skins of the fruit and causing rapid decay. WE WISH TO IMPRESS UPON THE EXAMINER THE FACT THAT THE SKIN OF ORANGES AND LEMONS ARE EXTREMELY DELICATE,—we might say extremely sensitive to bruising. This bruising of the cells of the skins has been found to be the cause of decay and as the fruit has to be shipped long distances to the market, and much of it is placed in cold storage, it is extremely desirable to so handle the fruit that it will not decay. This bruising is avoided with applicant's present apparatus. The gravity apparatus of Rayburn must operate according to the law of its construction, i. e., the law of gravity; while the principle of applicant's apparatus does not involve the law of gravity for the carrying of the grades of fruit to the predetermined bins, but depends upon a traveling conveyor upon which the oranges are carried, not upon which the orange roll along by gravity. It is clear, therefore, that the Rayburn combination is not pertinent as a reference. Applicant's combination is separate and distinct from Rayburn's and is an independent invention, for as said by the Supreme Court of the United States in *WINANS vs. DENMEAD*, (15 How. 340):

“Its substance is a new mode of operation, by means of which a new result is obtained. It is this new mode of operation which gives it the character of an invention, and entitled the inventor to a patent; and this new mode of operation is, in view of the patent law, the thing entitled to protection.”

See, also,

McSherry Mfg. Co. vs. Dowaigiac Co., 101 Fed. 716;

Brown Bag Filling Mach. Co. vs. Drohen, 140 Fed. 107;

Gandy vs. Main Belting Co., 143 U. S. 587;

Farmers' Mfg. Co. vs. Spruks Co., 127 Fed. 691;

Sayre vs. Scott, 55 Fed. 971. [684]

As said by the court in CHISHOLM v. RANDOLPH CANNING CO., 135 Fed. 815:

“It is obvious from the descriptions given by Mme. Faure that she had no conception of the impact method which was discovered by Chisholm, and it has been demonstrated by practice that her machine is incapable of its practical performance.”

So in the present case, it is obvious from the Rayburn patent that Rayburn had no conception of applicant's mode of operation and his apparatus is incapable of operation according to the law of co-operation inherent in applicant's combination.

In KEYSTONE MFG. CO. v. ADAMS, (151 U. S. 142), the Supreme Court held that the Henry Adams corn sheller was an invention, although his father, Augustus Adams, had previously made a corn sheller



from which that of Henry differed only in reversing the direction of revolution of one of its parts. That part was the revolving beater, which Augustus Adams made to turn in the direction opposite to the desired motion of the ears of corn, expecting it to knock back any ear that might ride upon another, and thus tend to prevent choking the shelling devices. This mode of operation was not entirely satisfactory, and Henry Adams reversed the direction of the beater so that its wings moved in the same direction as that of the ears of corn, thus driving them forward into the shelling devices. The old combination, with that new mode of operation, was highly successful, and the patent thereon was held to be valid and given a liberal construction.

In *Deere & Co. v. Rock Island Plow Co.*, (84 Fed. 176), the Court held

“That a combination showed invention where it had a new mode of operation, even if all the parts thereof were old and even if the function of the combination was also old.”

The Court of Appeals for the Seventh Circuit in *DOWAGIAC MFG. CO. v. SUPERIOR DRILL CO.* (115 Fed. 886), says:

“IF A NEW ORGANIZATION OF OLD ELEMENTS is such that *is* produces a new mode of operation and a beneficial result, there may be patentable invention. The decisions to this effect are very numerous. A long list of them is shown in 1 Rob. Pat., Section 115, note 4.”

“The case of *Star Brass Works v. General*

Electric Co., 49 [685] C. C. A. 409, 111 Fed. 398, recently decided by this court, is a very *pre-tinent* illustration of a patentable invention shown by the peculiar location of one of the elements of a combination of old elements. It was an invention relating to the construction of a trolley employed in operating cars by electrical power, and consisted in so locating the brush which takes off the current from the circuit as to diminish the friction between the hub of the wheel and the brush to a greater extent than had previously been done, and also by putting the brush inside the frame, protecting it from injuries to which it had theretofore been exposed."

See, also,

Dowagiac *Ci. v. Minnesota Moline Plow Co.*, 118 Fed. 136; *Brown v. Stillwell & Bierce Mfg. Co.*, 57 Fed. 731; *Ide v. Trorlicht etc. Co.*, 115 Fed. 137; *Emerson Mfg. Co. v. Van Nort Bros. Co.*, 116 Fed. 974; *Crown Cork & Seal Co. v. Aluminum Co.*, 108 Fed. 845; *Anderson v. Collins*, 122 Fed. 451.

In *A. R. Milner Seating Co. v. Yesbera* (133 Fed. 916), the Court upheld the patent for the reason that the *patenee* had reorganized the old elements "in such a way as to effect a new mode of operation."

In fact the courts have gone so far as to hold that where there is a mere duplication of parts it will amount to invention if the duplication of parts produces a new mode of operation.

Walker on Pats. (4th Ed.), Section 34, page 34;

Parker v. Hulme, 1 Fish. P. C. 44; Goss Printing Press Co. v. Scott, 108 Fed. 253.

As said in Blake v. Stafford (6 Blatchf. 195, Fed. Cas. 1504):

“Though the seprate parts are all as old as the mechanical arts, if they are organized into having a new mechanical operation, then it is patentable.”

The rule of law applicable to combination is most comprehensively *state* by Mr. Robinson, in his work on Patents, Vol. 1, Section 291;

“A compound machine consists of two or more simple machines united under a co-operative law. Its identity is conditioned upon the employment of the same elemental machines in the same co-operative union, with the same function and the same ultimate effect. Hence, the withdrawal of any one of these constituent machines, or the substitution for it of another which it not its true *equivalent*, or an alteration in it which changes its essential character as an operative means, or the addition of a new subordinate machine, destroys the former combination and creates another and a different machine. So also when, although the elements remain the same in substance, their re-arrangement or some formal variation in themselves disturbs their previous relations to each other, and thus introduces a new co-operative law; or where, if this can be mechanically possible, with unchanged [686] elements and the same co-operative law the combination as a whole assumes a different char-

acter and performs different functions or the same functions in a different manner the conditions of identity are defeated, and the combination itself is destroyed.”

As said by the Court of Appeals for the Sixth Circuit in *Yesbera v. Hardesty Co.* (166 Fed. 120, 125), “The point to be emphasized is that the law looks not at the elements or factors of an invented combination as a subject for a patent, but only to the combination itself as a unit distant from its parts.

In this connection we call particular attention to the decision of the Supreme Court in *Clough v. Barker* (106 U. S. 166), in which the patent was sustained because of the new co-operative principle or law of operation, although the old and alleged anticipation might have been so used, although it was not suggested or described as being capable of being so *use* nor was any use in such manner of the old device shown in evidence.

These authorities show must conclusively that the Examiner’s position is wrong in law. The rule of law absolutely supports applicant’s position that the principle of operation of the Rayburn apparatus being different from the principle of operation of applicant’s apparatus, the Rayburn patent cannot be an anticipation.

WE ASK ON WHAT PRINCIPLE CAN THE EXAMINER’S POSITION BE DIFFERENTIATED FROM BEING THE EXACT OPPOSITE TO THAT RULE OF LAW THUS REPEATEDLY ANNOUNCED AND APPLIED BY THE COURTS?

It is clear, therefore, that the Rayburn patent is not a pertinent reference and should be totally withdrawn. We have heretofore called the Examiner's direct attention to the rule of law that it is not proper to build up an anticipation by combining references. This rule of law, *laso*, is well established, and is not one which the courts have discarded but one which the *court* are now enforcing more than ever, see for example the recent decisions of the Court of Appeals in

J. L. Owens Co. v. Twin City Separator Co., 168  
Fed. 259.

Wayne Mfg. Co. v. Benbow-Brammer Co., 168  
Fed. 271.

Naylor v. Alsop Process Co., 168 Fed. 911.  
[687]

This mental reorganization of the devices of prior patents and the combination thereof with other to anticipate any subsequently produced combination so evidently a pet hobby of many of the *Examiners* has been most emphatically and positively denounced and overturned by the courts of all the circuits and cannot be sustained upon any theory of the law of combinations and as said by the Circuit Court of Appeals for the Eighth Circuit in Naylor v. Alsop Process Co. (*supra*):

“When it is sought to ascertain the state of the art by means of prior patents, nothing can be used except what is disclosed on the face of those patents. They cannot be reconstructed in the light of the invention in suit, and then used as a part of the prior art.”



“An expert cannot take a *procoess* patent, which has never been applied industrially, and work the process in his labratory, and discover therefrom something which is not disclosed on the face of the patent, and then transfer that experience back to the time of the patent, and make it a part of the prior art for the purpose of defeating a meritorious invention. That would be *ex post facto* law of the most pernicious character.”

So also is the creation of an imaginary anticipation, by the Examiner, by reoragnizing an old combination, and combining it with the other elements to produce a subsequent combination. Where does the Examiner get his knowledge of the new combination? The answer is plain—not from the prior patents, but from applicant's invention.

Inasmuch as no one of the references show applicant's combination, it is conclusively proven to be novel. It is not shown by comething which does not work upon the same co-operative law. The rejection of any of the claims upon any one of the references or upon the mental re-organization and combination effected by the Examiner cannot be sustained in law. It is directly opposed to all authority and must be receded from and the claims allowed. [688]

If the Examiner still thinks that to create a mental combination by taking the conveyor of Stevens or White, removing therefrom the parts which prevent its operation as does applicant's traveling conveyor, and put it into combination with the other parts of the Rayburn apparatus, to *this* produce applicant's combination, is an anticipation, we advise him to read the law on this subject, not only as set forth in

the cases before cited herein, and those cited in our amendment dated March 27th, 1909, but also

St. Louis Street Flushing Mach. Co. v. American St. Flushing Mach. Co., 156 Fed. 574, 579;

Bates v. Coe, 98 U. S. 31;

Emerson Electric Co. v. Van Nort Bros. Co., 116 Fed. 974;

Clough v. Barker, 106 U. S. 175;

Johnson v. Railroad Co., 33 Fed. 500;

American St. Car. Adv. Co. v. Newton St. Railway Co., 82 Fed. 735;

Packard v. Lacing-Stud Co., 70 Fed. 66, 68;

Boston & R. Electric St. Ry. Co. v. Bemis Car-Box Co., 80 Fed. 287, 289;

Zubelt v. Friedman, 158 Fed. 430;

Merrow v. Shoemaker, 59 Fed. 120.

It is easy for an Examiner to sit in a chair in the Patent Office and say that this or that does not involve invention. But the Supreme Court of the United States seems to think that the question is one of more moment and one less easy of determination. That the seemingly obvious is not in fact all obvious. That many seemingly obvious things really require the happy thought of inventive genius to their creation. It is strange that all these obvious (?) things are so apparent to the Examiner when they are in fact absolutely hidden from the practical mechanic working in the arts. [689]

Of course the reason why these changes are obvious to the Examiner, and not obvious to the ordinary skilled mechanic working in the art, cannot be be-

cause the Examiner has before him applicant's disclosure of how to accomplish the desired result!

That most eminent and able jurist, Mr. Justice Brown, in delivering the decision of the Supreme Court of the United States, in *Potts & Co. v. Creager* (155 U. S. 597), does not seem to agree with the Examiner, but says:

“Indeed, it often requires as acute a perception of the relations between cause and effect, and as much of the peculiar intuitive genius which is characteristic of great inventors, to grasp the idea that a device used in one *are* may be made available in another, as would be necessary to create the device *de novo*. And this not the less true if, after the thing has been done, it appears to the ordinary mind so simple as to excite wonder that it was not thought of before. The apparent simplicity of a new device often leads an inexperienced person to think that it would have occurred to anyone familiar with the subject; but the decisive answer is that with dozens and perhaps hundreds of others laboring in the same *field*, it has never *ocurred* to anyone before. The practiced eye of an ordinary mechanic may be safely trusted to see what ought to be apparent to everyone. As was said by Mr. Justice Bradley, in *Webster Loom Co. v. Higgins*, 105 U. S. 580, 591: ‘Now that it has succeeded, it may seem plain to anyone that he could have done it as well. This is often the case with inventions of the greatest merit.’ ”

In the present case the experienced eye of the mechanic skilled in the art of building and using fruit packers' machinery never saw applicant's combina-

tion—it was not apparent to him—although the Rayburn apparatus was in actual use before him.

The Examiner must be more astute, more keenly observing, more ingenious, than Mr. Justice Bradley, who has taken a very opposite view to that of the Examiner, and in *Loom Co. v. Higgins (supra)*, says: [690]

“It may have been under their very eyes, they may almost be said to have stumbled over it; but they certainly failed to see it, estimate its value, and bring it to notice.”

The quotation from Mr. Justice Brown’s decision in *Potts v. Creager (supra)* is not an isolated or peculiar case but that it aptly illustrates the viewpoint of that eminent jurist (probably the most able patent judge ever on the Supreme Bench), is seen when reference is had to his decision in *The Barbed Wire Case* (143 U. S. 154), in which he says:

“In the law of patents it is the last step that wins. It may be strange that, considering the important result obtained by Kelly in his patent, it did not occur to him to substitute a coiled wire in place of the diamond-shaped prong, but evidently it did not; and to the man to whom it did ought not to be denied the quality of inventor. There are many instances in the reported decisions of this court where a monopoly has been sustained in favor of the last of a series of inventors, all of whom were groping to attain a certain result, which only the last one of the number seemed to grasp.”

It is apparent that the Courts realize the grave

danger of jumping to a conclusion that a given change or substitution is an obvious one which an ordinary mechanic would make. The supposed obviousness of the Examiner's mental substitution of elements to reconstruct the Rayburn apparatus so as to work not on the law of gravity, but on the principle of operation of applicant's apparatus, never was obvious to anyone before applicant's invention. No one ever thought of such a device. These are the facts. The Examiner's prophecy (after applicant has shown him the blazed way), is not a part of the prior art and is not an anticipation. The position that the claims are met either by the Rayburn patent or by any of the patents combined with Rayburn or by any modification of rearrangement of Rayburn's [691] apparatus and the interjection thereinto of an element or elements not therein shown or used and which cannot be utilized in Rayburn's apparatus without a change of the co-operative law of the apparatus, to build up a hypothetical structure as an anticipation, is not to judge the novelty of applicant's invention by what was actually known prior to applicant's discovery. It is contrary to law. Such a position cannot be maintained and must be receded from.

THE EXAMINER'S POSITION AS TO  
AGGREGATION IS EQUALLY ERRONEOUS  
AND CONTRARY TO LAW.

There is true "combination," within the meaning of this term in "Patent Law," between the particular style of grader shown and described and the particular distributing conveyor, guiding means and



adjustable bins. The fact that other forms of grading means might be substituted does not alter this fact. The criterion is, is there a unitary result secured by the co-ordinated mechanism? This cannot be denied. We pause *the* reiterate this statement—this cannot be denied. Neither the statement that this is the true test of a “combination” nor its application to the present claims *cannot* be successfully disputed. If the Examiner has any doubts he will do well to read the decisions of the courts wherein the true test of “combination” and “aggregation” are set forth. For the Examiner’s convenience and that he may have an opportunity to consult the true rule of law, we cite a number of leading decisions interpreting the rule as to “Combinations” and “Aggregations.”

Deere & Co. v. Rock Island Plow Co., 84 Fed. 171;

Dayton Malleable I. Co. v. Forster, Waterbury & Co., 153 Fed. 201;

Sanders v. Hancock, 128 Fed. 424;

Beach v. Hobbs, 82 Fed. 916;

Rob. on Pats., sec. 156;

Dowagiac Co. v. Superior Drill Co., 115 Fed. 886;

National Cash Register Co. v. American Cash Register Co., 53 Fed. 367, 371 (a leading case). [692]

International Time Rec. Co. v. Dey, 142 Fed. 744;

Blake & Knowles Wks. v. Warren Steam Pump Co., 155 Fed. 285;

Holmes Burglar Alarm Co. v. Domestic Co., 42  
Fed. 220;

Bowers v. Von Schmidt, 63 Fed. 572, 583;

Hoffman v. Young, 2 Fed. 74, 77;

Stutz v. Armstrong, 20 Fed. 843, 847;

American Street Car Adv. Co. v. Newton St.  
Ry. Co., 82 Fed. 732;

National Tube Co. v. Aiken, 163 Fed. 254, 262;

St. Louis St. Flush Mach. Co. v. American Co.,  
156 Fed. 574, 579.

The object of applicant's apparatus is to separate the fruit according to its sizes and deliver the separated fruits in predetermined bins. To accomplish this the combined action of the grading element and the traveling conveyor, guiding means and bins are necessary. The particular style of grader is peculiarly adapted for use in this combination. As said by Mr. Robinson in Section 291 of his work on Patents (quoted on page 5 hereof), this specific grader is one of the elemental machines utilized by applicant in the preferred embodiment of his invention, to form the combination which is the invention in issue. While the invention is not limited, in all its aspects, to this particular style of grader, yet that particular style of grader is in true combination with the other elements of the combination and is patentable.

We respectfully request the Examiner to give this application that careful consideration which the importance of the invention merits. We trust that the Examiner will consider carefully the rules of law which have been cited to him and consider with care

the attitude of the courts in judging these questions. Having given due consideration in the matter we know the Examiner must reverse his position and allow the application as it stands.

A complete and final action is demanded.

Respectfully submitted,

TOWNSEND, LYON & HACKLEY,

Attorneys for Applicant.

(Dictated F. S. L.) [693]

TFM.

Paper No. 10.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

MEC.

Div. 25, Room 315.

Address only

“The Commissioner of Patents,

Washington, D. C.”

and not any official by name.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., June 25, 1909.

MAILED “ “ “

Fred Stebler,

c/o Townsend, Lyon and Hackley,

Los Angeles, Cal.

Please find below a communication from the Ex-  
your

aminer in charge of the application of No. 432,548,

filed May 12, 1908, for Distributing Apparatus.

E. B. MOORE,

Commissioner of Patents.

Case further considered as argued June 23, 1909.

Applicant has apparently clearly understood the implication of allowance where a claim is not specified among claims rejected, in three successive office letters; and asserts a failure to understand a fourth office letter, which grants a repeated request for final action as far as the Examiner may properly grant such a request. In said office letter, that of April 28, 1909, each claim rejected is specified by numeral and the grounds of rejection are stated. In view of the facts that neither the numerals nor the substance of the claims in the case when office letter of Feb. 3, 1909, was sent have been changed, and applicant's plainly understanding the implication from non-mention of claims, it is respectfully suggested that no difficulty should be encountered in ascertaining from a mere comparison of the numerals of the claims rejected in the two office letters specified which were the claims as to which the Examiner had changed a previous favorable opinion to one unfavorable. [694]

Examiner must insist that the last office letter clearly indicated what claims were rejected, and the grounds of rejection.

The claims specified as rejected in office letter of April 28, 1909, (claims 1, 2, 3, 4, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18, 19, (432,548—2) and 20) are again and *finally* rejected up the reasons and references

stated in said office letter of April 28, 1909.

T. F. MITCHELL,

Act'g Examiner, Division XXV.

T. F. MITCHELL. [695]

CERTIFICATE OF DEPOSIT.

\$10—RECEIVED

JUL. 6, 1909. C

CHIEF CLERK U. S. PATENT OFFICE.

Los Angeles, June 20, 1909.

Commissioner of Patents,

Washington, D. C.

Sir:

In Re: Application of FRED STEBLER, Serial  
No. 432,548, FRUIT DISTRIBUTING  
APPARATUS, on APPEAL TO EXAM-  
INERS-IN-CHIEF.

We enclose you herewith formal appeal to Board  
of Examiners-in-Chief in this case, together with  
U. S. Certificate of Deposit for \$10.00 in payment  
of the Appeal Fee.

We request that the appeal be set for the very ear-  
liest possible date. Oral hearing waived.

Respectfully,

TOWNSEND, LYON & HACKLEY.

F. S. L.-L. [696]



Serial No. 432,548. Paper No. 11.

MAIL ROOM.

PATENT OFFICE.

JUL. 6, 1909.

JUL. 8, 1909.

U. S. PATENT OFFICE. DIVISION XXV.

Div. 25.

IN THE UNITED STATES PATENT OFFICE.

In the Matter of the application of FRED STEBLER,

“DISTRIBUTING SYSTEM.”

Filed May 12th, 1908,

Serial No. 432,548.

Los Angeles, Cal., June 30, 1909.

APPEAL FROM THE PRIMARY EXAMINER  
to the

BOARD OF EXAMINERS-IN-CHIEF.

To the Hon. Commissioner of Patents,

SIR:—

I hereby appeal to the Examiners-in-Chief from the decision of the Principal Examiner in the matter of my application for Letters Patent for Distributing Apparatus filed May 12th, 1908, Serial No. 432,548, which on the 25th day of June, 1909, was rejected the second time.

The following are points of the decision on which the appeal is taken.

The rejection of claims 1, 2, 3, 4, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18, 19 and 20 upon any of the patents cited, to wit:—

Rayburn, 741,928, dated Oct. 20, 1903; White, 731,828, dated June 23, 1903; Stevens, 749,459, dated June 23, 1903; Ish, 458,422, dated August 25, 1891;

Strain, 775,015, dated November 15, 1904, for the following reasons, to wit:—

(1) The co-operative law of the combination of each of said claims is different from the co-operative law of the devices set forth in any one of said patents, and each of the said combinations set forth in said respective claims are [697] therefore separate and distinct from any combination shown in any one of said patents.

(2) The Primary Examiner erred in holding that either one, or all of said patents, show the combination of devices in the interrelations set forth in and co-operating as called for by anyone of said respective claims.

(3) The Primary Examiner erred in rejecting any one of said claims upon the references of record.

(4) The Primary Examiner erred in citing the patent to Stevens for the reason that said Stevens patent is not for a device in the same art as applicant's apparatus, nor is it in an analogous art.

(5) The Primary Examiner erred in rejecting any one of said claims upon a built-up, mental or theoretical combination of devices from said Rayburn patent and from said White, Stevens or Strain patents and a mental rearrangement of the elements of said prior patents in combinations and interrelations in which such elements are not shown by said respective reference patents and to co-operate upon a principal of operation not utilized by such prior patents. Such rearrangement and reorganization of the prior art is not to judge applicant's petition for a patent by what is actually shown by prior patents to be old, but is to rearranged and manufacture a record

and a prior art which in fact did not exist prior to applicant's invention.

(6) The Primary Examiner erred in that he did not pass upon applicant's right to a patent or judge the same by the prior art as it actually existed prior to applicant's invention [698] but made theoretical modifications and rearrangements of such prior art, after having been shown how to do the same by applicant, in order to approximate an anticipation of said claims.

(7) The Primary Examiner erred in not allowing each of said claims.

(8) The Primary Examiner erred in rejecting any of said claims as aggregations.

(9) The Primary Examiner erred in holding that there was not true combination between the grading elements, co-operating upon a law of gravity, and the carrying and distributing means co-operating therewith to accomplish the purpose of the invention.

Respectfully submitted,

TOWNSEND, LYON & HACKLEY,

Attys. for Stebler.

FSL-H. [699]

Paper #12.

Application No. 432,548.

Fred Stebler,

Distributing Apparatus,

Filed May 12, 1908.

Before the Hon. Board of Examiners-in-Chief

On Appeal.

Messrs. TOWNSEND, LYON and HACKLEY,  
for Applicant.

U. S. PATENT OFFICE.

JUL. 14, 1909.

MAILED.

### EXAMINER'S STATEMENT.

The claims appealed are:

1. "The combination with a fruit grading element constructed to deliver fruit at different longitudinal portions, of traveling supporting and distributing means extending laterally from the grading element and inclined downwardly away therefrom, the longitudinal extension of the delivery portion of the said distributing means being greater than the longitudinal extension of the grading element.
2. "In combination with a grading element constructed to deliver fruit at different longitudinal portions, a distributing apparatus therefor comprising a conveyor traveling longitudinally of the grading element, and guiding means arranged along the conveyor forming chutes to guide the fruit and bins arranged along the length of said conveyor and at the sides thereof.

3. "The combination with a grading element adapted to deliver graded fruit at different longitudinal portions of the element, a traveling conveyor extending longitudinally under said grading element and extending beyond the end thereof, a series of bins whose longitudinal extension is greater than the longitudinal extension of the grading element arranged along the side of said conveyor, and guiding means for guiding the fruit along said conveyor and from the grading element to the series of bins.
4. "The combination with a grading element and a series of bins, of a conveyor traveling longitudinally under the grading element and along the side of the series of bins, and guiding means arranged along the conveyor to guide the fruit to the bins, said guiding means diverging towards the bins. [700]
6. "A distributing apparatus comprising in combination with a grading element, a horizontally traveling conveyor inclined downward away from said grading element, bins arranged below and along said conveyor, and guiding means arranged along the conveyor providing chutes for directing fruit to bins.
7. "In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt forming the way or chute for the fruit to travel along and thereby be graded by gravity, a traveling conveyor arranged thereunder and of greater length than said grader, a series of bins arranged at the side of said conveyor



and means in conjunction with said conveyor for directing fruit along said conveyor to the respective bins.

8. "In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming therewith the grading way or chute for the fruit to pass along and be graded by gravity, a traveling conveyor arranged thereunder, a series of bins arranged along the side of said conveyor, an adjustable guiding means arranged along the conveyor and forming a chute for directing the graded fruit from the point of discharge from said conveyor into said bins, said guiding means being adjustable to shift the point of discharge longitudinally of the conveyor.
9. "In combination with a grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and be separated or assorted by gravity, a distributing apparatus for a fruit grader or sizer comprising a horizontally traveling conveyor, a pulley for said conveyor mounted on an inclined axis and a second pulley mounted on a horizontal axis, the conveyor being extended between and passing over said pulleys, a bed supporting the upper run of said conveyor and provided with a hip over which conveyor travels as it approaches said horizontally pulley, and guiding means arranged along the

conveyor forming chutes for the fruit.

12. "In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and be separated or assorted by gravity, a distributing apparatus comprising fruit supporting means outwardly and downwardly inclined from one side to the other, and guide means extending obliquely across the supporting means, each guide means comprising telescoping members.
13. "In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming in conjunction therewith the way, or chute, for the fruit to pass along and be separated or assorted by gravity, a distributing apparatus comprising fruit supporting means outwardly and downwardly inclined from one side to the other, guide means extending obliquely across the supporting means, each guide means comprising telescoping members, and means for adjusting the longitudinal position of the outer ends of said members. [701]
14. "In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming a grading way or chute for the fruit to pass along and be separated or assorted by gravity, a series of bins, a distributing apparatus therefor comprising a conveyor traveling lon-di-

tudinally of the grading element and guiding means arranged along the conveyor forming chutes to guide the fruit to said bins.

15. "In combination with a fruit grader comprising a graduated rotary member and a traveling endless belt arranged adjacent thereto and forming a grading way or chute for the fruit to pass along and be separated or assorted by gravity, of traveling separating and distributing means extending under said fruit grader and inclined downward away therefrom, the longitudinal extension of the delivery portion of said distributing means being greater than the longitudinal extension of said grader, and a series of bins arranged along said distributing means.
16. "In combination, a grading element and a distributing apparatus therefor, and bins arranged at the side of the distributing apparatus, said distributing apparatus comprising a conveyor traveling horizontally and longitudinally of the grading element and under the same, guiding means extending transversely of the conveyor and forming separated chutes for the fruit and opening into respective bins.
17. "A grading element and fruit bins, in combination with a conveyor of greater length than the grading element and extending alongside said fruit bins, and guiding means, on the surface of said conveyor and forming separated chutes for the separated and sized fruit, extending transversely of the conveyor.
18. "In combination, a grading element and a dis-

tributing apparatus therefor, bins arranged at the side of the distributing apparatus, said bins provided with movable partitions whereby the widths of the bins along the distributing apparatus may be adjusted, said distributing apparatus comprising a conveyor traveling horizontally and longitudinally of the grading element and under the same, and guiding means extending transversely of the conveyor and forming separated chutes for the fruit and opening into respective bins.

19. "A grading element, in combination with a distributing apparatus, comprising a horizontally traveling conveyor inclined downward away from said grading element, guiding means arranged along the conveyor providing separated chutes for directing the fruit, and bins arranged below and alongside said conveyor, said bins provided with movable partitions whereby the width of the bins may be adjusted with respect to longitudinal extension of said conveyor.  
[702]

20. "The combination with a grading element and a series of bins, a conveyor traveling longitudinally under the grading element and along the side of the series of bins, and adjustable guiding means arranged along the conveyor to guide the fruit to the bins, said guiding means diverging toward the bins, said bins provided with movable partitions whereby the longitudinal extension of the respective bins may be

adjusted with relation to the length of the conveyor.”

The references relied upon are: 458,422, Ish, Aug. 25, 1891; 731,828, White, June 23, 1903; 741,928, Rayburn, Oct. 20, 1903; 775,015, Strain, Nov. 15, 1904, Thrashing, Fruit and Vegetable Separators; and 759,459, Stevens, Jan. 12, 1904, Measuring Instruments, Gages, Assorting.

The grounds of rejection are set forth in the office letter of April 28, 1909, from which the following is quoted:

“Rayburn plainly shows the combination of a fruit grading element with laterally and downwardly extending distributing means, (3, 4) for delivering the separated fruit to a series of bins. This series of bins and the distributing means are plainly greater than the longitudinal extension of the grading element. Indeed, Rayburn appears to completely anticipate the 1st claim, which is rejected in view thereof.

“Claim 2 expresses merely the substitution of a specifically different distributing means for the distributing means of Rayburn, but not altering the combination. Stevens, Strain (fig. 8) and White of record plainly show distributors comprising traveling conveyers with guides forming channels thereon leading to the various points of delivery. To substitute such a distributor for Rayburn’s would be but an interchange of equivalents which would not alter the combination nor involve invention. Claim 2 is rejected in view of said references as are also claims 3 and 4. [703]



“Claim 6 is rejected in view of the references for claims 2—4, the inclination of the conveyor being but an arbitrary change of form, destitute of invention.

“Claim 7 is rejected as being for an aggregation of a specific grader and a specific distributing conveyor, no combinative relation appearing between the two specific devices. The grader is practically disclaimed in the second paragraph of page 2; and it obviously does not involve invention to substitute old grading elements and old distributing elements for the equivalent elements in the old combination shown in Rayburn.

“Claim 8 is for a similar aggregation, unpatentable irrespective of any supposed novelty either of grader or distributor. The application of the specific distributor specified in the 8th claim, which goes somewhat beyond the capabilities of Rayburn’s, to a fruit grader generically may be patentable; but as applied merely to a specific grader it is for a simple aggregation unless applicant can establish a combinative relation between the specific grader and the specific distributor. The 8th is rejected for the reason stated.

“Claims 9, 12 and 13 are rejected upon the same ground, as are claims 14 and 15. Claims 14 and 15 are also rejected in view of the references for claims 2—4, and 458,422, Ish, August 25, 1891, Fruit and Vegetable Separators, showing the specific grader.

“Upon review, the examiner has felt compelled to revise *the* his favorable views as to certain of the claims in view of the too specific recital of the grader. If the specific distributor be novel in connection with

fruit graders, it appears to be novel in connection with them generically rather than in connection with a specific grader, especially when the latter is confessedly old. [704]

“Claims 16 and 17 are rejected upon the references for claims 2—4.

“The 18th and 19th are rejected as being for aggregations, there being no combinative relation brought out in these claims between the specific distributor and the specific bin.

“The 20th is rejected upon the same ground. However, if the adjustability of the guiding means be defined in its relation to the adjustability of the bin partitions, the claim probably would be allowed.”

The case is respectfully submitted.

J. H. LIGHTFOOT,

Primary Examiner,

Div. 25.

Room 315, U. S. Patent Office,

July 14, 1909.

T. F. M. [705]

COPY.

Paper No.

Address only

Notice of Hearing.

The Commissioner of Patents,

Washington, D. C.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C.,

July 15, 1909.

Sir:

Serial

The case of Fred Stebler, ~~Intf.~~ No. 432,548, will  
be heard by the ~~Commissioner~~  
Examiners-in-Chief on the 2nd day  
of August, 1909.

It is the 9th case on the assignment for that day.

The hearings will commence at <sup>(ten)</sup>~~(one)~~ o'clock, and  
as soon as the argument in one case is concluded the  
succeeding case will be taken up.

If any party, or his attorney, shall not appear  
when the case is called, his right to an oral hearing  
will be regarded as waived.

The time allowed for arguments is as follows:

Ex parte cases, thirty minutes;

Motions, thirty minutes, each side;

Interference appeals, final hearing, one hour  
each side.

By special leave, obtained before the argument is  
commenced, the time may be extended.

The appellant shall have the right to open and con-  
clude in interference cases, and in such case a full  
and fair opening must be made.

Briefs in interference appeals must be filed in accordance with the provisions of Rule 147.

Respectfully,

E. B. MOORE,

Commissioner of Patents.

To Fred Stebler,

c/o Townsend, Lyon & Hackley, Attys.,

504 Merchants Trust Co. Bldg.,

Los Angeles, Cal. [706]

MAIL ROOM. Appeal No. 2276. Paper No. 14.

JUL. 27, 1909.

Brief.

U. S. PATENT OFFICE.

DOCKET CLERK.

JUL. 27, 1909.

U. S. PATENT OFFICE.

EXAMINERS-IN-CHIEF,

JUL. 27, 1909.

U. S. PATENT OFFICE.

Brief.

IN THE UNITED STATES PATENT OFFICE.

In the Matter of the Application of FRED STEBLER,

“DISTRIBUTING SYSTEM.”

Filed May 12th, 1908.

Serial No. 432,548.

APPEAL FROM THE PRIMARY EXAMINER  
to the

BOARD OF EXAMINERS-IN-CHIEF.

ARGUMENT ON BEHALF OF APPLICANT.

To the Hon. Commissioner of Patents,

Sir:

We desire to call attention to the fact that the prin-

incipal reference appears to be the patent to Rayburn No. 741,928. As we have already called to the Examiner's attention, applicant is the owner of the Rayburn patent and has been the owner of the Rayburn patent since 1905. A few devices embodying the Rayburn construction have been installed in packing-houses in Southern California, but objections to such apparatus have been found by the packers using the same, such objections consisting among other things to the fact that permitting the delicately skinned oranges to roll down along an incline, thus acquiring considerable momentum, causes them to come with considerable force or impact against each other and against the sides of the bin, bruising the oranges and causing rapid decay.

It is a fact which is well known in the orange industry that the skins of both oranges and lemons are extremely sensitive. Bruising a few of the minute cells of the skins of the orange or of the lemon will cause a very rapid decay. California is a long ways from the eastern markets and it requires considerable time for the carriage of these fruits from the point of [707] production to the market. It is therefore absolutely essential that in the handling of the fruit every precaution should be taken to prevent decay. Actual experience has shown that only the most delicate machinery can be used in connection with the packing of the fruit. Applicant is known as the most up-to-date and enterprising builder of fruit packers' machinery in California and has for the last nine years given his time and attention to studying packing-house methods and machinery for handling oranges and lemons.



The demand for something which would handle the oranges without the abrasion of the skins caused applicant to experiment for a considerable period of time to produce an apparatus which would be efficient in operation and at the same time avoid any possibility of breaking the minute cells of the skins of the *fruit*. After a great deal of experimentation applicant produced the apparatus forming the subject matter of this application, and it has been recognized as an important advance in the art of handling oranges in the packing-houses.

It is absolutely clear that the principle of operation,—the law of co-operation of the devices,—of the Rayburn apparatus is dependent upon the law of gravity, and that the device does not work upon the same co-operative law as that utilized by applicant's apparatus.

The first point we make, therefore, is that the Rayburn patent cannot be an anticipation of the claims submitted by applicant. One of the first principles of patent law is that where the co-operative law of a combination differs from the co-operative law of another combination, the combinations are distinct and are separate and independent inventions, and will not anticipate each other. In other words, where the principle [708] of operation is different, the combinations are inherently and must necessarily be different, separate and distinct, and are independent inventions and one cannot anticipate the other.

In considering this rule of law it is essential that we should bear in mind what a "combination" in patent law is, and for the convenience of the Board

we quote from Robinson on patents, Section 291, as follows:—

“A compound machine consists of two or more simple machines united under a co-operative law. Its identity is conditioned upon the employment of the same elemental machines in the same co-operative union, with the same function and the same ultimate effect. Hence, the withdrawal of any one of these constituent machines, or the substitution for it of another which is not its true equivalent, or an alteration in it which changes its essential character as an operative means, or the addition of a new subordinate machine, destroys the former combination and creates another and a different machine. So also when, although the elements remain the same in substance, their re-arrangement or some formal variation in themselves disturbs their previous relations to each other, and thus introduces a new co-operative law; or where, *it* this can be mechanically possible, with unchanged elements and the same co-operative law the combination as a whole assumes a different character and performs different functions or the same functions in a different manner, the conditions of identity are defeated, and the combination itself is destroyed.”

The rule of law thus stated by Mr. Robinson is very pertinent in this case, for the reason that it is admitted that the fruit grader or grading element *per se* is old, but it is not old in connection with its co-operating elemental machine,—the longitudinally

moving conveyor,—and the guiding means and adjustable fruit bins. By means of the combination of the grading element and the longitudinally moving conveyor with the guiding means thereon, applicant is enabled to perform the desired function in a new manner. [709]

The Supreme Court of the United States in *Winans v. Denmead* (15 How. 340) says:

“Its substance is a new mode of operation, by means of which a new result is obtained. It is this new mode of operation which gives it the character of an invention and entitled the inventor to a patent; and this new mode of operation is, in view of the patent law, the thing entitled to protection.”

The Supreme Court thus recognizes that where the principle of operation or co-operative law of the combined mechanisms is different from what is alleged to anticipate, anticipation is not made out and there is patentable novelty.

That where the principle of operation or co-operative law of the combination differs from the principle of operation or co-operative law of previous combinations there is no anticipation, is well settled. See for instance the following decisions.

*McSherry Mfg. Co. v. Dowagiac Mfg. Co.*, 101 Fed. 716, 41 C. C. A. 627;

*Brown Bag Filling Mach. Co. v. Drohen*, 140 Fed. 107;

*Gaudy v. Main Belting Co.*, 143 U. S. 587;

*Farmers' Mfg. Co. v. Spruks Mfg. Co.*, 127 Fed. 691, 62 C. C. A. 447;

*Sayre v. Scott*, 55 Fed. 971, 5 C. C. A. 366.

There is no question whatever but that the apparatus produced by applicant is far superior to the Rayburn construction, and it is also absolutely clear that there is nothing in the Rayburn patent which would lead the ordinary mechanic skilled in the art to build applicant's apparatus. The Courts have, in many instances, gone so far as to hold that where there is a mere [710] duplication of parts it amounts to patentable invention if the duplication of parts produces a new mode of operation or the utilization of a new co-operative law in the combination.

Walker on Patents, (4th Ed.) section 34, page 34;

Parker v. Hulme, 1 Fish. P. C. 44;

Goss Printing Press Co. v. Scott, 108 Fed. 253.

But the Examiner's rejection does not rest solely upon the Rayburn patent. Reference is made to certain other patents and the Examiner suggests that in place of using the distributing spouts of the Rayburn apparatus, operating upon the principle of gravity, it might be possible to take the conveyor belt from one of the other patents, and guiding means from another patent, and thus build up the combination which applicant has invented.

It must be admitted, however, that not one of these prior patents shows such an apparatus, nor such a combination, nor does any one of the prior patents show an apparatus which could be utilized for applicant's purpose to operate upon the principle of co-operation of applicant's apparatus.

Again it is not seen where in any of the references



cited by the Examiner there is any suggestion which would lead any mechanic skilled in the art to make such a combination. Clearly, not one of the prior patents would lead a mechanic to build such an apparatus.

As in many important inventions, the real invention lies in the conception that such a combination can be made and utilized for the given purpose.

It is easy for an Examiner to sit in a chair in the Patent Office and say that this or that does not involve invention. [711] But the Supreme Court of the United States seems to think that the question is one of more moment and one less easy of determination. That the seemingly obvious is not in fact all obvious. That many seemingly obvious things really require the happy thought of inventive genius to their creation. It is strange that all these obvious (?) things are so apparent to the Examiner when they are in fact absolutely hidden from the practical mechanic working in the arts.

Of course the reason why these changes are obvious to the Examiner, and not obvious to the ordinary skilled mechanic working in the art, cannot be because the Examiner has before him applicant's disclosures of how to accomplish the desired result.

That most eminent and able jurist, Mr. Justice Brown, in delivering the decision of the Supreme Court of the United States, in *Potts & Co. v. Creager* (155 U. S. 597), does not seem to agree with the Examiner, but says:

“Indeed, it often requires as acute a perception of the relations between cause and effect, and as



much of the peculiar intuitive genius which is characteristic of great inventors, to grasp the idea that a device used in one area may be made available in another, as would be necessary to create the device *de novo*. And this not the less true, if, after the thing has been done, it appears to the ordinary mind so simple as to excite wonder that it was not thought of before. The apparent simplicity of a new device often leads an inexperienced person to think that it would have occurred to anyone familiar with the subject; but the decisive answer is that with dozens and perhaps hundreds of others laboring in the same field, it had never occurred to anyone before. The practiced eye of an ordinary mechanic may be safely trusted to see what ought to be apparent to anyone. As was said by Mr. Justice Bradley, in *Webster Loom Co. v. Higgins*, 105 U. S. 580, 591: 'Now that it has succeeded, it [712] may seem plain to anyone that he could have done it as well. This is often the case with inventions of the greatest merit.' "

In the present case the experienced eye of the mechanic skilled in the art of building and using fruit packers' machinery never saw applicant's combination,—it was not apparent to him—although the Rayburn apparatus was in actual use before him.

The Examiner must be more astute, more keenly observing, more ingenious, than Mr. Justice Bradley, who has taken a very opposite view to that of the Examiner, and in *Loom Co. v. Higgins* (*supra*), says:

"It may have been under their very eyes, they may almost be said to have stumbled over it; but they certainly failed to see it, estimate its value, and bring it to notice."

The quotation from Mr. Justice Brown's decision in *Potts v. Creager* (*supra*) is not an isolated or peculiar case but that it aptly illustrates the viewpoint of that eminent jurist, (probably the most able Patent judge ever on the Supreme Bench), is seen when reference is had to his decision in *The Barbed Wire Case*, (143 U. S. 154), in which he says:

"In the law of patents it is the last step that wins. It may be strange that, considering the important result obtained by Kelly in his patent, it did not occur to him to substitute a coiled wire in place of the diamond shaped prong, but evidently it did not; and to the man to whom it did ought not to be denied the quality of inventor. There are many instances in the reported decisions of this court where a monopoly has been sustained in favor of the last of a series of inventors, all of whom were groping to attain a certain result, which only the last one of the number seemed to grasp." [713]

It is apparent that the Courts realize the grave danger of jumping to a conclusion that a given change or substitution is an obvious one which an ordinary mechanic would make. The supposed obviousness of the Examiner's mental substitution of elements to re-construct the Rayburn apparatus so as to work not on the law of gravity, but on the principle of operation of applicant's apparatus, never was obvious to anyone before applicant's invention. No one ever thought of such a device. These are the facts. The Examiner's prophecy (after applicant has shown him the blazed way) is not a part of the prior art and is not an anticipation. The position

that the claims are met either by the Rayburn patent or by any of the patents combined with Rayburn or by any modification or re-arrangement of Rayburn's apparatus and the interjection thereinto of an element or elements not herein shown or used and which cannot be utilized in Rayburn's apparatus without a change of the co-operative law of the apparatus, to build up a hypothetical structure as an anticipation, is not to judge the novelty of applicant's invention by what was actually known prior to applicant's discovery. It is contrary to law.

As said by the Court in *CHISHOLM v. RANDOLPH CANNING CO.*, 135 Fed. 815:

"It is obvious from the descriptions given by Mme. Faure that she had no conception of the impact method which was discovered by Chisholm, and it has been demonstrated by practice that her machine is incapable of its practical performance."

So in the present case, it is obvious from the Rayburn patent that Rayburn had no conception of applicant's mode of operation and his apparatus is incapable of operation according to the law of co-operation inherent in applicant's combination. [714]

In *KEYSTONE MFG. CO. v. ADAMS*, (151 U. S. 142), the Supreme Court held that the Henry Adams corn sheller was an invention although his father, Augustus Adams, had previously made a corn sheller from which that of Henry differed only in reversing the direction of revolution of one of its parts. That part was the revolving beater, which Augustus

Adams made to turn in the direction opposite to the desired motion of the ears of corn, expecting it to knock back any ear that might ride upon another, and thus tend to prevent choking the shelling devices. This mode of operation was not entirely satisfactory, and Henry Adams reversed the direction of the beater so that its wings moved in the same direction as that of the ears of corn, thus driving them forward into the shelling devices. The old combination, with the new mode of operation, was highly successful, and the patent thereon was held to be valid and given a liberal construction.

In *Deere & Co. v. Rock Osland Plow Co.*, (84 Fed. 176), the Court held:

“That a combination showed invention where it had a new mode of operation, even if all the parts thereof were old and even if the function of the combination was also old.”

In *A. R. Milner Seating Co. v. Yesbera*, (133 Fed. 916), the Court upheld the patent for the reason that the patentee had reorganized the old elements “in such a way as to effect a new mode of operation.”

As said in *Blake v. Stafford* (6 Blatchf. 195, Fed. Cas. 1504);

“Though the separate parts are all as old as the mechanical arts, if they are organized into a new machine having a new mechanical operation, then it is patentable.” [715]

In this connection we call particular attention to the decision of the Supreme Court in *Clough vs. Barker* (106 U. S. 166), in which the patent was sustained because of the new co-operative principle



of law of operation, although the old and alleged anticipation might have been so used, although it was not suggested or described as being capable of being so used nor was any use in such manner of the old device shown in evidence.

These authorities show most conclusively that the Examiner's position is wrong *in law*. The rule of law absolutely supports Rayburn apparatus being different from the principle of operation of applicant's apparatus, the Rayburn patent cannot be an anticipation.

But the Examiner's method of anticipating applicant's invention does not stop at ignoring the difference in the co-operative laws of the combinations of devices utilized in the Rayburn patent and in applicant's apparatus, nor does it stop at the change in the mode of operation, but requires the substitution for the combined devices of the Rayburn patent co-operating upon the law of gravity of elements operating upon a principle of co-operation never before produced by any one in a combination to effectuate applicant's purpose. The Examiner absolutely ignores the principle of patent law so well established, that a combination of elements co-operating to produce a useful result is not anticipated by showing the several elements of the combination to be old and by taking these elements from the different prior devices in which they have been used and combining them (after an inventor has produced such a combination) into a combination which would be an anticipation, thus building up a prior art which is not in fact shown to ever have existed. [716]



This combination of the prior art to effectuate an anticipation has been most strongly denounced by the courts and the rule, instead of being departed from by the more modern decisions is being more rigidly enforced every day.

This rule is clearly set forth as follows:

“It is not sufficient, to constitute an anticipation, that the devices relied upon MIGHT, by a process of modification, reorganization, or combination with each other, be made to accomplish the function performed by the device of the patent sued on.” Says the Circuit Court in WESTERN ELECTRIC CO. vs. HOME TELEPHONE CO., 85 Fed. 649.

In discussing this doctrine the Court further says:

“The force of this ruling is made manifest, in its practical application to the rights of parties, by the reflection that all earlier patents set up in defence against a later patent sued upon are but the record evidence of the State the art has reached. The rights under such later patent are subject to what this record *actually shows*. To change this record, by permitting theoretical modifications of these earlier patents, would be the same, in force, as to change, by interpolations or modifications, any other evidence between the parties.”

In other words, applicant's right to a patent is to be judged by what each one of the prior patents *actually shows* and not by a *new combination* of elements formed in the Examiner's mind by taking a portion of one of the devices of the prior patents and

combining it with devices from another patent in a relation in which it is not shown in either of the patents, thus forming what in law is known as a *new combination*. The Examiner in his action has utterly ignored the true rule of combination claims. [717].

As said by the Circuit Court of Appeals for the Sixth Circuit, in YESBERA vs. HARDESTY MFG. CO., 166 Fed. (No. 1) 120, 125:

“Now when we remember that there are two classes of patents, one for simple elements, and another *for combinations of elements*, and the distinguishing characteristics of the two classes, it is readily seen how impossible it is to apply this language to the other class of patents than those of the class specified. *In a combination patent* there are no unpatented features in the sense that they are separable from patented ones, and no one of the elements is patented. They may all be old and not patentable at all unless there is some new combination of them. The point to be emphasized is that the law looks not at the elements or factors of an invented combination as a subject of a patent, but only to the combination itself as a unit distinct from its parts.”

The very fact that the Examiner admits, as he does admit in the official action of February 3rd, 1909, that the patent to Rayburn does not show the interrelation of parts, and mode of operation of the parts, to perform the functions of the combination of any one of these claims, is an admission that the

Rayburn patent is not, within the rule of law before cited, an anticipation of any of these claims. But the Examiner says that a mechanism having the interrelation of parts, mode of operation and function of the respective combination of these respective claims, could readily be produced *by substituting*, for the series of chutes of Rayburn, a conveyor such as that of White or Stevens. In other words, take and change what the record of the art is, i. e., the device of the Rayburn patent, by interpolating unto such record by substituting White or Stevens' conveyor for the chutes of Rayburn. This is clearly [718] not judging the novelty of applicant's combination by what the record *actually shows*, but is judging the novelty by an interpolated or mentally constructed record which does not in fact exist and is clearly within the inhibition of the rule of law before cited.

See, also,

Gunn vs. Bridgeport Brass Co., 148 Fed. 239;

Topliff vs. Topliff, 145 U. S.;

Ryan vs. Newark Co., 96 Fed. 100;

Simons R. M. Co. vs. Hathorn Mfg. Co., 90 Fed. 201, 208;

J. L. Owens Co. vs. Twin City Separator Co., 168 Fed. 259;

Wayne Mfg. Co. vs. Banbow-Brammer Co., 168 Fed. 271;

Naylor vs. Alsop Process Co., 168 Fed. 911.

This mental reorganization of the devices of prior patents and the combination thereof with each other to anticipate any subsequently produced combination *so evidently a pet hobby* of many of the Exam-

iners has been most emphatically and positively denounced and overturned by the courts of all the circuits and cannot be sustained upon any theory of the law of combinations and as said by the Circuit Court of Appeals for the Eighth Circuit in Naylor vs. Also Process Co. (*Supra*):

“When it is sought to ascertain the state of the art by means of prior patents, nothing can be used except what is disclosed on the face of those patents. They cannot be reconstructed in the light of the invention in suit, and then used as a part of the prior art.”

“An expert cannot take a process patent, which has never been applied industrially, and work the process in his laboratory, and discover therefrom something which is not disclosed on the face of the patent, and then transfer the experience back to the [719] time of the patent, and make it a part of the prior art for the purpose of defeating a meritorious invention. *That would be ex post facto law of the most pernicious character.*”

So also is the creation of an imaginary anticipation, by the Examiner, by reorganizing an old combination, and combining it with other elements, to produce a subsequent combination. Where does the Examiner get his knowledge of the new combination? The answer is plain,—not from the prior patents, but from applicant's invention.

Inasmuch as no one of the references show applicant's combination, it is conclusively proven to be novel. It is not shown by something which does

not work upon the same co-operative law. The rejection of any of the claims upon any one of the references or upon the mental reorganization and combination effected by the Examiner cannot be sustained by law. It is directly opposed to all authority and must be receded from and the claims allowed.

St. Louis Street Flushing Mach. Co. vs. American St. Flushing Mach. Co., 156 Fed. 574, 579;

Bates vs. Coe, 98 U. S. 31;

Emerson Electric Co. vs. Van Nort Bros. Co., 116 Fed. 974;

Clough vs. Barker, 106 U. S. 175;

Johnson vs. Railroad Co., 33 Fed. 500;

American St. Car. Adv. Co. vs. Newton St. Railway Co., 82 Fed. 735;

Packard vs. Lacing Stud Co., 70 Fed. 66, 68;

Boston & R. Electric St. Ry. Co. vs. Bemis Car-Box Co., 80 Fed. 287, 289;

Zubelt vs. Friedman, 158 Fed. 430;

Merror vs. Shoemaker, 59 Fed. 120. [720]

## THE DEVICE OF THE WHITE PATENT 731,828.

The first object of this device is to separate the sound from the unsound cranberries. No such function is accomplished by the mechanism of applicant's apparatus and it is impossible to compare any portion of the White machine which is designed for performing this operation with any portion of applicant's apparatus.

The separating according to sizes is accomplished by means of parallel screw conveyors 55. (Specifi-



cation page 2, line 115 *et seq.*) In connection with this separating or sizing mechanism no distributing and conveying mechanism dependent on a longitudinally moving belt is shown or described. Nor could any be utilized.

The White device has no pertinency whatever to the claims of applicant. The White mechanism is so different from applicant's in construction, interrelation of parts and in the mode of operation that the absolute lack of any pertinency whatever as a reference should be apparent.

To combine some portion of this mechanism with some other mechanism with which White neither shows nor described it, and to thereby create a new combination, is not to judge the novelty of applicant's combination by what White shows but to create a mental combination not suggested or shown by White. Applicant does not contend that any of these elements are new, *but the combination of elements in the relation* utilized by applicant *are new.*

#### THE STEVENS PATENT 749,459.

This patent relates to devices in a totally different art. There is no similarity whatever between automatic cartridge loading machines and fruit-packing machinery. Furthermore the character of the merchandise to be handled is totally [721] different and each art presents problems not found in the other.

There is no danger of bruising the extremely delicate skins of cartridge wads. There is no liability of causing their decay by rough handling. The cart-

ridge wads are of much different form and size from that of fruit, such as oranges.

It is well settled that a device must either be in the same or an analogous art to be pertinent as a reference. A device from a nonanalogous art can constitute an anticipation only under the doctrine of "double use." Of course, to take an old device from one use and apply it to another use or art *without change* does not constitute invention. But the rule does not extend to any use where a remodeling of the device is required to make it adapted to the new use. The doctrine of "double use," does not include any use, of a device of one art, in another, where the elements must be rearranged, nor does it include the taking of a portion of an old combination from one art and combining that, in a new relation in an art in which it has not been used, with other devices.

"A device relating to one art is not anticipated by a like device taken from an entirely foreign art, where the latter was not intended by its maker, or actually adapted, to perform the functions of the former."

Moore vs. Shaw, 118 Fed. 602.

Upon authority it is clear that this Stevens patent has no relevancy whatever when judging applicant's right to a patent in the art in which applicant is working.

The Stevens device was neither intended for sizing fruit nor for distributing the sized fruit to bins at which the packers worked. The Stevens device

could not be used without reconstruction and remodeling.

You could not size and distribute oranges by the Stevens device, in the manner in which this function is performed by applicant's apparatus, regardless of the size and proportions of this Stevens device. [722]

Furthermore, this is a function which Stevens did not have in mind, for which his device was not intended, and a function for which the apparatus as designed by Stevens could not be used.

It is clear that the Stevens device is not in law an anticipation of any portion of applicant's conception,—that it is wholly foreign to applicant's invention.

The Examiner admits that the Stevens patent, even if it were in an analogous or the same art, does not show any one of the *combinations* claimed by applicant.

Under the rules of law constituting the doctrine of "Double use" this shows conclusively the immateriality of the Stevens device as a reference. But this is not all. The admission of the Examiner, supported as it is in fact, that the Stevens device cannot be used for applicant's purpose shows the lack of relevancy of the Stevens patent as showing the combination of any one of applicant's claims. Try to read any one of them on the Stevens patent and no further argument is needed. No pointing out of the utter failure to disclose *the claimed combination is necessary*.

If it were proper to combine old devices by taking

a part from one patent and a part from another patent it would be possible to anticipate every invention which resides in a combination of old elements, regardless of the new function, or new mode of operation, or more facile or economical construction or operation. Clearly such procedure cannot be justified on authority, for it is well established that "a patent for a combination cannot be defeated by showing that each of its elements, separately considered, is old, but it must be shown that *the combination* is old."

GORMULLY *v.* JEFFREY CO *vs.* STANLEY CYCLE CO., 90 Fed. 299.

Furthermore, it must always be borne in mind that "a combination is not unpatentable merely because its results may also have been produced by other combinations." [723]

Deere & Co. *vs.* Rock Island Plow Co., 82 O. G. 1561, 1564. (C. C. A. 7th Circuit.)

In other words, the Rayburn patent shows one kind of a combination for this purpose, operating upon one co-operative law. If, as suggested by the Examiner, the distributing spouts, etc., of the Rayburn patent are removed, you remove and destroy entirely the Rayburn *combination*. By removing the Rayburn gravity spouts and replacing them by a conveyor and guiding means thereon, you have not substituted an element *in the Rayburn combination*, but have totally removed the Rayburn Combination and have substituted therefor another and a separate and independent *combination*. This is not

merely the substitution of an equivalent for one element of a combination.

In Robinson on Pats., Vol. 1, section 282, it is said :

“Assuming that their functions are the same, since without this no identity is possible, the mode in which each combination performs these functions, or its intrinsic attributes when taken as a whole, first demand attention. If the forces, objects, or modes of application which constitute the essential factors of the two combinations are evidently different, the combinations must be distinct inventions; if evidently the same, the constituent elements of each combination and their co-operative laws must be examined. When every element in one is represented by an equivalent element in the other, so that a complete interchange of elements would work no alteration in the functions of the combination or in its co-operative law, the elements of both combinations are identical; but otherwise the elements are diverse and the combinations are independent inventions.”

Walker on Patents, 4th Ed., Section 62, page 576, says:

“But if a patented process or thing possesses distinct and apparently important characteristics not possessed by any alleged anticipation, the defense for want of novelty will fail.”

[724].

THE STRAIN PATENT No. 775,015.

The parts of this apparatus to which the Examiner evidently refers are the parts referred to as 41,



42, 43 and 44. (See Official Letter of Oct. 30, 1908, paper No. 3.)

One grading machine embodying this patented apparatus was built by Thomas Strain. Applicant's attorneys were the attorneys for Mr. Strain and made the drawings of his application from that one machine. We are, therefore, in a position to thoroughly understand both what Mr. Strain sought to accomplish and know how his mechanism operated.

None of the claims are met by the patent to Strain for the reason that the parts 41, 42, 43 and 44 of Strain's apparatus are in no manner connected with the grading mechanism. These parts are used simply by the operator whose duties it is to pick off or assort the imperfect or damaged fruits or culls and place them upon the lower leg of the belt which conveys them to the cull bins. This portion of the mechanism is not in mechanical combination with the grading element, and hence, neither meets the invention of applicant, nor the spirit of the claims presented.

The Examiner's attempt to read the letter of the claims, ignoring the spirit and true interpretation thereof, falls clearly within the criticism of the U. S. Circuit Court of Appeals in 1900 *Washer Co. vs. Cramer* (169 Fed. 632):

“The combination or description of the standard washer, or of this Wearne tub, can be read it is contended by defendant's counsel into this first claim. This may be true if we stick in the bark, by looking at the language of the claim, dissociated from the specifications; but no inven-

tion can be practically or fairly understood or explained if such dissociation is absolutely adhered to.” [725]

In as much as the Strain apparatus without changes and reorganization cannot be used for applicant's it is clear it is not an anticipation.

As said by the Supreme Court in *Bates vs. Coe* (98 U. S. 31):

“Devices are substantially different when they perform their duties in a substantially different way, or produce substantially a different result.”

TRUE “COMBINATION,— not “AGGREGATION.”

The last ground for appeal or assignment of error brings into question that portion of the Examiner's action which rejects claims 7, 8, 9, 12, 13, 14 and 15 as “aggregations” of a specific grader and a specific distributing apparatus.

The Examiner states there is no “combinative relation” between the elements of these claims.

The Examiner's objection ignores the mechanical fact that without a grading elements the distributing portion of the apparatus would be useless. And ignores the fact that the graduated roller and endless belt forming the grading way do in fact co-operate with the longitudinally traveling conveyor and guiding means to separate and deliver the fruit according to its sizes in the desired bins. There is true combination between the particular form of grading means shown and described and the longitudinally moving conveyor with the guiding means.

Both these mechanism are co-related to produce a single unitary result,—in fact, the longitudinally moving *coveyor* and guiding means are simply additions to the grading element to complete the work of the grader, and are especially adapted for use with the graduated roller and traveling belt forming the sizing or separating run-way. [726]

As said by Mr. Robinson, in Section 291 (see page 3 hereof), this graduated roller and traveling belt, forming the grading of *separating* run-way is one of the elemental machines utilized by applicant in the preferred embodiment of his invention, to form the combination which is the invention in issue. While the invention is not limited, in all its aspects, to this particular form of grading run-way, yet this particular embodiment of the separating or grading way is peculiarly adapted for use with the longitudinally moving conveyor and guiding means and is in true combination therewith.

Respectfully submitted,

TOWNSEND, LYON & HACKLEY,

Attorneys for Stebler.

F. S. L. [727]

Appeal No. 2276.

Paper No. 15.

Decision.

Appeal No. 2276.

U. S. Patent Office, October 27, 1909.

BEFORE THE EXAMINERS-IN-CHIEF, ON  
APPEAL.

Application of FRED STEBLER for a Patent for  
an Improvement in Distributing Apparatus.

Filed May 12, 1908.

Serial No. 432,548.

Messrs. TOWNSEND, LYON & HACKLEY,  
for Appellant.

This is an appeal from the action of the examiner  
rejecting claims 1 to 4, 6 to 9 and 12 to 20, all inclu-  
sive, on the following references:

Ish, Aug. 25, 1891, No. 458,422;

White, June 23, 1903, No. 731,828;

Rayburn, Oct. 20, 1903, No. 741,928;

Stevens, Jan. 12, 1904, No. 749,459;

Strain, Nov. 15, 1904, No. 775,015;

Claim 1 sufficiently represents the appealed claims  
and is as follows:

“1. The combination with a fruit grading  
element constructed to deliver fruit at different  
longitudinal portions, of traveling supporting  
and distributing means extending laterally from  
the grading element and inclined downwardly  
away therefrom, the longitudinal extension of  
the delivery portion of the said distributing  
means being greater than the longitudinal ex-  
tension of the grading element.”

Rayburn shows a fruit grading element constructed to deliver the fruit at different longitudinal portions, and distributing means extending laterally from the grading element and inclined downwardly away therefrom. In Rayburn also the receiving bins are so distributed that the two lines thereof are longer than the length of the grading element. Rayburn fails to meet the claim, however, in that his distributing means is not "traveling," nor is the language of the latter part of the claim, to wit, "the longitudinal extension of the delivery portion of the said distributing means being greater than the longitudinal extension of the grading element," readable upon Rayburn. The examiner takes the view, however, [728] that (2276, 2.) applicant has but substituted for the delivery means of Rayburn that of Stevens, Strain or White. The distributing means of White and Strain are clearly unadapted for applicant's device and in order to be used therewith would require such modification as to entirely lose their identity. Stevens is more nearly in point since he shows the longitudinally traveling belt with the directing members across it. However, the delivery portion of the distributing means is not greater than the longitudinal extension of the grading element, as called for by claims 1, 3, 4, 15 and 20. Furthermore, Stevens' machine operates very differently and on very different material from that of this applicant. His device is a wad sorter and the sorting is done on the endless carrier. He does not show a grading element apart from the conveyer. It is clear that the Stevens device is not at all adapted to sort oranges,



in which it is important that the slightest abrasion of the skin be avoided; nor would the Stevens device without material modification be available on this account for use as a conveyer for an orange sorting machine. We do not think that the Stevens' patent would suggest the substitution of the conveyer and guides there shown for that the Reyburn patent, though the mechanical modification required in the Stevens' structure would not be great. Viewed otherwise, we regard the device covered by the appealed claims as a true combination not to be anticipated by the elements of the references modified and conjointly used.

The appealed claims are in our judgment patentable and the decision of the examiner is reversed.

JOHN B. MACAULEY,

FRANK C. SKINNER,

Examiners-in-Chief. [729]

COPY.

Address only

Letter No.

The Commissioner of Patents, Notice of Decision.

Washington, D. C.

DEPARTMENT OF THE INTERIOR,  
UNITED STATES PATENT OFFICE,

Washington, D. C.

Fred Stebler,

c/o Townsend, Lyon & Hackley, Attys.

504 Merchants Trust Co. Bldg.

Los Angeles, Cal.

Sir:

Inclosed find copy of decision this day rendered by the Examiners-in-Chief in the *ex parte* case of

Fred Stebler—Serial No. 432,548.

By direction of the Commissioner.

Very respectfully,

W. F. WOOLARD,

Chief Clerk.

F. [730]

Address only

SERIAL No. 432548.

The Commissioner of Patents,

FC.

Washington, D. C.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., Nov. 6, 1909.

Fred Stebler,

Care Townsend, Lyon & Hackley,

504 Merchants Trust Co., Bldg.,

Los Angeles, Cal.

Sir: Your APPLICATION for a patent for an IMPROVEMENT in Distributing Apparatus filed May 12, 1908, has been examined and ALLOWED.

The final fee, TWENTY DOLLARS, must be paid not later than SIX MONTHS from the date of this present notice of allowance. If the final fee be not paid within that period the patent on this application will be withheld, unless renewed with an additional fee of \$15, under the provisions of Section 4897, Revised Statutes.

The office delivers patents upon the day of their date and on which their term begins to run. The printing, photo-lithographing, and engrossing of the several patent parts, preparatory to final signing and sealing, will require about four weeks, and such work

will not be undertaken until after payment of the necessary fee.

When you send the final fee you will also send, **DISTINCTLY AND PLAINLY WRITTEN**, the name of the **INVENTOR** and **TITLE OF INVENTION AS ABOVE GIVEN**, **DATE OF ALLOWANCE**, (which is the date of this circular), **DATE OF FILING**, and, if assigned, the **NAMES OF THE ASSIGNEES**.

If you desire to have the patent issue to **ASSIGNEES**, an assignment containing a **REQUEST** to that effect, together with the **FEE** for recording the same, must be filed in this office on or before the date of payment of final fee.


After issue of the patent uncertified copies of the drawings and specifications may be purchased at the price of **FIVE CENTS EACH**. The money should accompany the order. Postage stamps will not be received.

Final fees will **NOT** be received from other than the applicant, his assignee or attorney, or a party in interest as shown by the records of the Patent Office.

Respectfully,

E. B. MOORE,  
Commissioner of Patents.

[Marginal notes:]

 **IN REMITTING THE FINAL FEE GIVE THE SERIAL NUMBER AT THE HEAD OF THIS NOTICE.**

**UNCERTIFIED CHECKS WILL NOT BE ACCEPTED. [731]**

## CERTIFICATE OF DEPOSIT.

\$20.—RECEIVED S.

NOV. 20, 1909.

CHIEF CLERK, U. S. PATENT OFFICE.

## MEMORANDUM

of

FEE PAID AT UNITED STATES PATENT  
OFFICE.

(Be careful to give correct Serial No.)

Serial No. 432,548. \_\_\_\_\_, 1900.

INVENTOR:

Fred Stebler.

Patent to be issued to

Same.

Name of Invention, as allowed:

Distributing Apparatus.

Date of Payment:

Nov. 15—09.

FEE:

Final.

Date of Filing:

May 12—08.

Date of Circular of Allowance:

Nov. 6—09.

The Commissioner of Patents will please apply  
the accompanying fee as indicated above.

TOWNSEND, LYON &amp; HACKLEY.

Attorney.

Send Patent To

Townsend, Lyon & Hackley,  
PATENT ATTORNEYS,  
504-7 Merchants Trust Co. Building,  
(207 SOUTH BROADWAY.)  
Los Angeles, Cal. [732]

PATENT WILL ISSUE

DEC. 21, 1909.

Serial No. 432,548.

Address only

“The Commissioner of Patents,  
Washington, D. C.”

DEPARTMENT OF THE INTERIOR.  
UNITED STATES PATENT OFFICE.

JH.

Washington, D. C., Nov. 22, 1909.

Fred Stebler,

c/o Townsend, Lyon & Hackley,  
504 Merchants' Trust Co. Bldg.,  
Los Angeles, Cal.

Sir:

You are informed that the final fee of TWENTY DOLLARS has been received in your application for Improvement in

Distributing Apparatus.

Date of receipt—Nov. 20, 1909.

Very respectfully,

E. B. MOORE,  
Commissioner of Patents. [733]

[THOSE PORTIONS OF THIS EXHIBIT WHICH ARE DUPLICATED IN COMPLAINANT'S EXHIBIT NO. 2 ARE OMITTED HEREFROM.] [734]



## 130. THRASHING.

Fruit and Vegetable Separators.

1908.

## CONTENTS:

Print

Application ——— papers.

- |     |                          |                           |
|-----|--------------------------|---------------------------|
| 1.  | Rej.                     | June 25, 1908.            |
| 2.  | Amendt. A.               | Oct. 5, 1908.             |
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| 5.  | Rej.                     | Feb. 3, 1909.             |
| 6.  | Amend't C.               | Apr. 2, 1909.             |
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| 8.  | Rej.                     | Apr. 28, 1909.            |
| 9.  | Argument.                | June 23, 1909.            |
| 10. | F. Rej.                  | June 25, 1909.            |
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| 11. | EX'RS-IN-CHIEF.          | July 6, 1909.             |
| 12. | Exr's Statement          | July 14, 1909.            |
| 13. | Hearing.                 | Aug. 2/09. 1 P. M. No. 9. |
| 14. | Brief.                   | July 27/09.               |
| 15. | Decision (Copy to Atty.) | Oct. 27/09.               |
| 16. | Notice of Decision.      | “ “ “                     |

Appeal No. 2276.

## TITLE:

Improvement in Distributing  
Apparatus.

(20 Claims)

[735]

**Defendant's Exhibit "B"—File Wrapper and  
Contents of Thomas Strain Patent.**

No. A-44, N. D. Stebler vs. Porterville Cit. Assn.  
Defts. Exhibit No. "B." Filed July 12, 1916. Wm.  
M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy  
Clerk.

UNITED STATES OF AMERICA,  
DEPARTMENT OF THE INTERIOR,  
UNITED STATES PATENT OFFICE.

To all to whom these presents shall come, Greeting:

THIS IS TO CERTIFY that the annexed is a  
true copy from the records of this Office of the File  
Wrapper and Contents in the matter of the

Letters Patent of

Thomas Strain,

Number 775,015,                      Granted November 15, 1904,  
for

Improvement in Fruit-Graders.

IN TESTIMONY WHEREOF I have hereunto  
set my hand and caused the seal of the Patent Office  
to be affixed at the City of Washington, this 22d day  
of June, in the year of our Lord one thousand nine  
hundred and sixteen and of the Independence of the  
United States of America, the one hundred and  
fortieth.

[Seal]

R. F. WHITEHEAD,

Acting Commissioner of Patents.

(10¢ Documentary Stamp. Canceled Jun. 22,  
1916. U. S. Patent Office.) [736]

Div'n XXV.

NUMBER (SERIES OF 1900).

DIV. 25

1903.

138,752

(EX'R'S BOOK). 90-60

PATENT No.

775,015.

Name—Thomas Strain.

of Placentia.

County of

State of California.

Invention—Fruit Grader.

Division of App., No. , filed , 190  
PARTS OF APPLICATION FILED.

ORIGINAL.

RENEWED.

Petition	Jan 12, 1903	, 190
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Appl. filed complete Jan. 12	, 1903	, 190

Oct. 26, 1904.

Examined—Lewis B. Wynne

Apl. 20th , 1904 , 190

Countersigned—R. E. Grant, , 190

For Commissioner

For Commissioner

Notice of Allowance—April 22 , 1904 , 190

Cert.

Final Fee Cash dated Oct. 20 , 1904 , 190

" " Cert. \$20 Oct. 26 , 1904 , 190

Patented November 15 , 1904

2 Associate Attorney,

Attorney TOWNSEND BROS.

Los Angeles, Calif.

Name

Serial Number

Patent No.

Date of Patent

CERTIFICATE.

MAILED

AMOUNT RECEIVED.

Jan. 7, 1903.

\$15.00 JEH.

TOWNSEND BROS.

CHIEF CLERK.

ROOM

DIV.

Telephone Main 347.

TOWNSEND BROS.

Registered Attorneys.

No. 370.

IN THE UNITED STATES PATENT OFFICE.

Correspondents in the

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of the World.

Patents Copyrights.

Western Union Code Used

Telegraphic & Cable Address

“Patents Los Angeles.”

Protection Industrial Property

In All Countries

Trade Marks, Prints & Labels.

James R. Townsend,

321-322-323-324, Bradbury Block, 304-306 S. Broadway.

Francis M. Townsend.

Los Angeles, Cal., Jan. 7, 1903. 189

Thomas Strain

Fruit or Nut Grader.

Commissioner of Patents.

Sir:

We herewith enclose Petition and Power of Attorney, Specification, Oath and 3 sheets of Drawings in

the matter of the above-mentioned Application for Patent. Also U. S. Certificate of Deposit covering \$15.00 Filing Fee.

Very respectfully,  
TOWNSEND BROS.

MAIL ROOM.

JAN. 12, 1903.

U. S. PATENT OFFICE. [738]

ROOM.

TOWNSEND BROS.

Registered Attorneys.

DIV.

No. 370.

Correspondents	Telephone Main 347
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Of the World	Industrial Property
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Telegraphic & Cable Address	
“Patents Los Angeles”	

IN THE UNITED STATES PATENT OFFICE.

James R. Townsend, Francis M. Townsend,  
430-431-432-433, Bradbury Block, 304-306 S. Broad-  
way.

Los Angeles, California.

Serial No. 138,752 Paper No. 1/2.

APPLICATION

Filed 1903.

PETITION AND POWER OF ATTORNEY.  
TO THE HON. COMMISSIONER OF PATENTS.

Your petitioner Thomas Strain whose postoffice address is Placentia, California, a citizen of the



United States residing at Placentia in the county of Orange and State of California, prays that letters patent may be granted to himself for the Fruit Grader set forth in the annexed specification and he hereby appoints the firm of TOWNSEND BROS., the individual members of which firm are James R. Townsend and Francis M. Townsend of Los Angeles, California, his attorneys, with full power of substitution and revocation to prosecute this application, to make alterations and amendments therein, to receive the patent and to transact all business in the PATENT OFFICE connected therewith.

THOMAS STRAIN.

### SPECIFICATION:

To All Whom it May Concern:

Be it known that [739] I, Thomas Strain, a citizen of the United States, residing at Placentia, in the County of Orange, and State of California, have invented a new and useful FRUIT GRADER of which the following is a specification.

My invention relates to a machine by means of which different sizes of fruit may be *guaged* and sorted or separated into bins.

One object of my invention is to provide a fruit  
Apr.4/04 grader which will <sup>effectively</sup> ~~effectively~~ grade the fruit without damaging the fruit.

Another object of my invention is to provide means whereby the fruit will be thoroughly mixed or delivered into each bin in such a way that the

Apr. 4/04      several sizes of fruit in each bin <sup>are</sup> is  $\wedge$  perfectly distributed. This is a valuable feature for the reason that although the average size of fruit in different bins will vary still the actual size of fruit delivered into each bin will also vary somewhat.

Briefly my invention consists of means for conveying the fruit along an inclined surface and means arranged along the inclined surface to hold fruit of certain sizes at certain points on the inclined surface and to allow certain sizes of fruit to escape at certain points along the inclined surface. [739 $\frac{1}{2}$ ]

Referring to the drawings:—

Figure I is a diagrammatical plan view which shows the general arrangement of the fruit grader.

Aug. 17/03      Fig. II is a side elevation of the <sup>conveyor</sup>  $\wedge$  elevator, showing only a few bins.

Fig. III is a plan view of what is shown in Fig. II.

Fig. IV is a detail of a fragment of part of the feed regulator.

Fig. V is an enlarged side elevation of a section of the elevator showing three bins.

Fig. VI is a plan view of what is shown in Fig. V. In this view only one side of a portion of the elevator has been illustrated.

Fig. VII is an enlarged section taken on the line VII-VII, Fig. III.

Fig. VIII is a plan view partially in section of the lower part of the feeding end of the grader. In this view the lower half of the belt is shown.

Fig. IX is a transverse sectional view of a portion

of one side of the upper part of the grader.

Fig. X is a detail of part of the feeding device.

Fig. XI is a perspective view of a guard and adjustable deflector.

Fig. XII is a detail of a device for regulating the flow of fruit through the feeding trough. [740]

1 designates a supporting frame. The length of the frame will be dependent upon the number of bins employed in the grader. It should be understood that only a few bins are shown in the drawings and that as many bins may be used as desired. Mounted at one end of the frame is a shaft 2 upon which is mounted a pulley 3. At the other end of the frame

Aug. 17/03 a pulley 4 is mounted on a shaft journaled in a frame 5, the frame 5 being slidably mounted on horizontal bars 6 supported by the frame 1. 7 is a flexible connection attached to the frame 5 and passes over an anti-friction device 8 carried by the frame 1. 9 is a weight carried by the flexible connection 7.

Aug. 17/03 10 is a conveyor belt which has  $\Lambda$  along its inner middle face a narrow reinforcing strip or belt 11 which latter is mounted upon the pulleys 3 and 4. The conveyor belt 10 is relatively very much wider than the strip 11.

12 is a table having a middle portion which is horizontal and having sides which are inclined or sloping along each side of the center horizontal part. The central flat part is provided with a slight longitudinal recess in which loosely rides the belt 11. The inclined part of the table 12 is made in sections consisting of a series of hinged leaves 13, each leaf being

hinged to the center portion of the table as at 14.

15 are cross bars carried by the frame 1. 16 designates wedges which are interposed between the outer edges of the leaves 13 and the cross bars 15. Each wedge 16 is connected to a lever 17, the lever 17 being pivoted to a bracket 18. By manipulating the lever 17 and moving the wedges 16 in or out, the leaves 13 may be raised or lowered and given a greater or less inclination as desired. [741]

Aug. 17/03      <sup>is supported</sup>  
The belt 10 ~~rests~~ upon the upper surface of the table 12. Each leaf near its outer edge is provided with a concave depression 19. 20 designates grading rods arranged along opposite sides of the grader. Each rod being rotably mounted on adjustable arms 21. Each arm 21 is pivoted to the frame 1 as at 22. Each arm 21 is provided with an

one face or side of which is normally in close contact with the frame 1  
Aug. 17/03 enlargement 23,  $\wedge$  to afford sufficient friction for holding the arm 21 in the position in which it is placed, the friction produced being sufficient to hold the arm in the desired position. The grader rods 20 should be long enough to reach to the end

conveyor.  
Aug. 17/03 of the  $\wedge$  elevator. As shown in Fig. VI, a  
Insert A  
Oct. 6/03 grading rod is supported at intervals by the arms 21. The grading rods are provided with pulleys 25 at one end.

26 is a driving shaft mounted on the frame 1 and driven by a pulley 27. 28 are pulleys mounted on the driving shaft 26, each of which is connected with a pulley 25 by crossed belts. The grading rods 20 revolve in opposite directions and the movement of the lower face of the rod is always away from the

lower plane of the inclined leaves. This movement prevents fruit from being drawn in under the rods and squeezed against the conveyor belt. The fruit does not pass under the rods until the space reached is just large enough for the fruit to pass through easily.

29 designates an auxiliary conveyor belt which is mounted on pulleys 30 and 31. The pulley 31 is connected to another pulley 32 by a shaft 33 which latter is mounted on a bracket 34. The pulley 32 is driven by a belt from the pulley on the shaft 26. [742] Arranged at each side of the belt 29 are sloping side plates forming a trough 35.

36 designates guards which are supported by rods 37 which are suspended from bars 38. The guards 36 are suspended in such a way that they lie close to the conveyor belt and yet do not touch the belt and as the fruit passes under the grading rods at different points it is shunted by the guards 36 into the proper bins. The guards 36 are arranged along each side of the conveyor belt, one guard for each bin.

36a are brackets attached to the edges of the leaves. Mounted on each bracket is an inclined deflector 36b. The deflector 36b is provided with a lug 36c and the latter is adjustably mounted on the bracket 36a and clamped thereto by means of a set screw 36d. The deflector 36b may be placed at any desired point along the bracket 36a so that fruit will be shunted into the bin at any desired point. This allows the fruit to be delivered into the bin in such a way that it is thoroughly mixed. If the fruit was delivered into the bin direct from under the grading rods the



size of fruit in the bin at one extreme side would be larger than the size at the other side. To obviate this difficulty I employ the guards 36 and deflector 36b by means of which the fruit is thoroughly mixed in the bin and no particular size occupies a particular place in the bin as would be the case were the guards and deflectors not employed.

39 designates a pulley on the shaft 2. 40 designates a pulley on the shaft 26. The pulleys 40 and 39 are connected by a belt. [743]

41, 42, 43, 44 designate walls which are supported by rods 45. The rods 45 are carried by cross-bars 15. The walls 41, 42, 43 and 44 are suspended above

or run

Aug. 17/03 the bottom part  $\Lambda$  of the belt 10 in such a way that they lie close to the belt and yet do not touch the belt. These walls provide three troughs *a*, *b*, *c*. Troughs *a* and *b* provide for guiding into suitable bins the fruit that is removed by the sorters from the conveyor belt.

The troughs *a* and *b* are merely of sufficient length to extend along that portion of the length of the grader which is devoted to the sorters. In a fruit grader which is thirty feet long this space devoted to the sorter may *may* be about one third. The middle trough *c* as shown in Figs. II and III communicates through the medium of a trough 46 with the upper surface of one side of the conveyor belt 10. The other end of the trough *c* is offset and terminates in the trough 35.

47 designates an inclined trough arranged over the feeding end of the grader. In the center of the trough 47 is an oscillatory feed regulator 48 formed of seg-

mental plates 49, which plates are connected together by pieces 50, the feeder being pivotally mounted at

Aug. 17/03 <sup>52</sup> A 51 to the trough 47. <sup>51</sup> A 52 designates plates which are adjustably attached at angles to the

Aug. 17/03 <sup>51</sup> segmental plates 49. The plates A 52 are spaced apart at their adjacent edges, the space being sufficiently small to retain fruit which it is desired to have pass through the grader, and yet will allow fruit which is very much undersized and which it is not desired to grade to drop through the space and be discharged.

The feed regulator 48 is provided with an upright arm 53 which may be connected with any rotatable part by means of a rod 54. Arranged above the trough 47 is a tilting table 55 pivoted at 56. 57 is a trough which extends from the upper end of the [744] fruit elevator 58 to the tilting table 55. 59 is a flexible connection from the free end of the tilting table 55 which passes over a pulley 60 and may be connected with a prime feeding device which is not shown in the drawings. When the tilting table 55 becomes filled with fruit the weight of the fruit causes the table to tilt downward which pulls on the flexible connection 59, and the latter controls the action of the prime feeding device, not shown in the drawings. The fruit is discharged from the tilting table 55 into the trough 47 and rolls down the same till it comes in contact with the feed regulator 48. It stays in that position until the feed regulator is rocked into such position that the plate 52 is brought into a position that allows the fruit to roll up onto

the plate 52 and into the V-shaped portion of the feed regulator. The feed regulator after being filled is gradually rocked into the position shown in Fig. X and continues until the fruit in the regulator is discharged therefrom into the lower part of the trough, the fruit in the trough 47 is prevented from entering the feed regulator by reason of the curved segmental plate 49. Any fruit which has been admitted to the feed regulator which is undersized will fall through the opening between the two plates 52. 58a is a bar which is pivoted at 58b to the trough 47 and lies transversely of the trough, the trough 47

being to receive the bar at 58a

Aug. 17/03  $\Lambda$  is slotted as at 47a. By swinging the bar 58a into or out of the trough the fruit may be stopped or allowed to travel. When the fruit is stopped thereby the fruit piles up and accumulates on the tilting table causing the same to operate and shut down the prime feeding device, not shown. [745]

In operation fruit is delivered onto the conveyor belt 10 from the trough 47. The fruit is carried along the conveyor belt 10 between the

Aug. 17/03 extending longitudinally on the outer face thereof  
ridges 10<sup>a</sup>  $\Lambda$

Sorters who stand along both sides of the grader near the feeding end pick out what fruit is not suitable for packing and place such fruit in the troughs *a* and *b* and this fruit is conveyed by the lower part of the belt through the troughs *a* and *b* and delivered into suitable bins. The sorters pick off good fruit from between the ridges 10<sup>a</sup> and place it on each of the inclined sides of the belt where the fruit rolls down against the grading rods 20 and is carried

along the grading rods 20. The space between the grading rods and the belt 10 gradually varies, so that the larger fruit is carried by the conveyor belt to the farther end of the grader and the small fruit is allowed to escape under the grading rods at a point much closer to the feeding end of the machine. Intermediate sizes of fruit will escape under the rods at intermediate places along the rod.

It will be observed that by reason of the rotation of the rods 20 the fruit is prevented from becoming pinched between the rods 20 and belt 10. The rotation of the rods being in a direction which does not tend to draw the fruit under the rods.

It will be seen that the fruit is carried to the utmost limit as determined by the space which will allow or retain the fruit on the conveyor belt 10. When a certain size fruit is discharged under the

Aug. 17/03 which can only occur at clear spaces between consecutive guards 36, rod 20  $\Lambda$  it rolls down the inclined belt and

Aug. 17/03 the lower section of rests against  $\Lambda$  a guard 36, see Fig. IX.

When the fruit is in contact with the guard 36 it rests in the concave hollow depression 19. [746]

Aug. 17/03 <sup>guard</sup> The  $\Lambda$  ~~grader~~ 36 serves to hold the fruit from being delivered into the bin until the belt has traveled a sufficient distance to bring the fruit to the desired point opposite the bin at which point the

Aug. 17/03 deflector 36b which stands in front of the next  $\Lambda$  offset inclined part of the  $\Lambda$  guard shunts the fruit into the bin. The hollow depression holds the fruit on the conveyor belt after the fruit has passed under the grading rods before being shunted by the guards.



Fruit that is not removed by the sorters from the central portion of the belt is carried to the further end of the grader where it is deflected by means of the grader 61 and delivered into the trough 46 down through which the fruit rolls being discharged onto the lower part of the belt 10, falling into the trough *c*. The fruit is conveyed back to the feeding end of the grader by the lower part of the belt and is guided by the trough *c* into the trough 35, and from the latter it is delivered onto the auxiliary conveyor belt 29 which carries it rearward to the elevator 58, the connection between this conveyor and elevator is not shown in the drawings. The space between the rods 20 and the conveyor belt may be adjusted in two ways, either by raising or lowering the grading rods 20 by means of the arms 21, or by raising or lowering the leaves 13 by moving the wedges 16 in or out by manipulation of the levers 17. The latter method is preferable for the reason that it does not throw the grading rod 20 out of its natural alinement.

It should be understood that as the grading rod 20 is slender it permits of being adjusted within reasonable limits. That is it permits being thrown out of straight alinement. By raising and lowering the leaves 13 accurate adjustment of space may be secured for each section of the grader. [747]

It should be understood that the movement of the leaves or of the rods 20 when being adjusted is very slight comparatively and that the guards 26 are arranged a sufficient distance above the conveyor belt to allow the desired movement in adjusting the leaves.



Referring to Fig. VII 62 designates a trough formed of inclined plates provided on their upper surfaces with padding, such as 63 these serve to guide and softer the fall of the fruit from the trough 47 onto the conveyor belt 10, the oranges in falling strike the padded portion 63 which prevents the fruit being bruised.

It should be understood that I contemplate making such changes and alterations in the herein described embodiment as will come within the scope of my invention. [748]

What I claim and desire to secure by Letters Patent of the United States is:-

---

1. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, and means for gauging fruit on said inclined conveying means and lying along said line of travel above said conveying means and having its axis inclined.

Canceled  
Aug.17/03

2. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, and means for rotating said grading rod.

3. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, and means for rotating said grading rod, the direction of rotation of the rod being such that the movement of the undersurface of the rod is substantially directed away from the lower plane of the inclined conveying means.

---

Canceled  
Apr.4/04

4. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod and means for adjusting said grading rod relatively to the inclined fruit conveyor.

1  
6/03

5. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, a series of arms supporting said grading rod at intervals, and means for supporting said arms.

4

6. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, a series of arms supporting said grading rod at intervals, means for supporting said arms, and means for frictionally holding said arms in a desired position.

u, 17/03

" "

7. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, <sup>a table</sup> means for supporting said inclined conveying means embracing a pair of upright bars, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, and means for supporting said grading rod embracing an arm pivoted between said pair of bars and a bolt passing through said bars and arm.

4

" "  
" "

8. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, <sup>a table</sup> means for supporting said conveying means, <sup>supporting the table</sup> embracing a plurality of pairs of upright bars, an arm pivoted between each pair of bars, means for squeezing each arm between the bars and thereby frictionally holding each arm in position, an inclined grading rod lying along said line of travel above said conveying means, said rod being rotably mounted in said arms and means for rotating said rod.

pared  
Aug 17/03

- Aug. 17/03 5- traveling  
 " " " 6- 6. A fruit grader comprising means for conveying fruit  
 " " " along a definite line of travel, said means embracing <sup>movable</sup> opposite  
 " " " inclined <sup>flexible</sup> portions and means for retaining
- Oct. 6/03 <sup>flexible</sup> substantially-symmetrical portions and means for retaining  
 fruit on each of said inclined portions and lying along said  
 line of travel above said conveying means and having its axis  
 inclined.
- Aug. 17/03 6 traveling  
 " " " 7 10. A fruit grader comprising means for conveying fruit  
 " " " along a definite line of travel, means embracing <sup>movable</sup> opposite sub-  
 " " " <sup>inclined</sup> substantially-symmetrical portions the inclination of each portion  
 Oct. 6/03 being transverse of the line of travel, a plurality of <sup>flexible</sup> inclined  
 grading rods, each rod lying along said line of travel above  
 said conveying means, and means for rotating said grading  
 rods.
- Aug. 17/03 7- traveling  
 " " " 8- 11. A fruit grader comprising means for conveying fruit  
 " " " along a definite line of travel, means embracing <sup>movable</sup> opposite  
 " " " <sup>inclined</sup> substantially-symmetrical portions, the inclination of each por-  
 Oct. 6/03 tion being transverse of the line of travel, a plurality of <sup>flexible</sup>  
 inclined grading rods, each grading rod lying along said line  
 of travel above said conveying means and means for rotating  
 said grading rods in opposite directions.
- Aug. 17/03 8 traveling  
 " " " 9- 12. A fruit grader comprising means for conveying fruit  
 " " " along a definite line of travel, means embracing <sup>movable</sup> opposite sub-  
 " " " <sup>inclined</sup> substantially-symmetrical portions, the inclination of each portion  
 Oct. 6/03 being transverse of the line of travel, a plurality of <sup>flexible</sup> grading  
 rods, each grading rod lying along said line of travel above  
 said conveying means, and means for rotating said grading rods  
 in opposite directions, the directions of rotation of each rod  
 being such that the moving under surface of each rod is sub-  
 stantially directed away from the lower plane of its adjacent  
 inclined portion of said conveying means.

13. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transverse of the line of travel and embracing an endless belt and means for retaining the fruit on said inclined belt and lying along said line of travel above said belt and having its axis inclined.

14. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, and embracing an endless belt, an inclined grading rod lying along said line of travel above said belt and means for rotating said grading rod.

~~9-10-15.~~ A fruit grader comprising means for conveying fruit along a definite line of travel embracing an endless belt, means for supporting opposite sides of said belt in symmetrical inclined positions, means for *guaging* fruit on said inclined portions of said belt and lying along said line of travel above said belt, said latter means having their axes inclined in the same direction.

~~10-11-16.~~ A fruit grader comprising means for conveying fruit along a definite line of travel, said means embracing an endless belt, means for supporting opposite sides of said belt in symmetrical inclined positions, a plurality of grading rods, each rod lying along said line of travel above said belt, both grading rods being inclined in the same direction, and means for rotating said grading rods. [752]

~~11-12-17.~~ A fruit grader comprising means for conveying fruit along a definite line of travel, said means embracing an endless belt, means for supporting opposite sides of said belt in symmetrical in-



clined positions, a plurality of grading rods, each grading rod lying along said line of travel above said belt, both grading rods being inclined in the same direction, and means for rotating said grading rods, the direction of movement of both rods being such that the moving under surface of each rod is substantially directed away from the lower plane of the inclined parts of said belt.

12-~~13~~-18. A fruit grader comprising a frame, a  
 a horizontal central portion having  
 Aug. 17/03 table consisting of  $\Lambda$  a plurality of opposite hinged leaves, means for supporting said leaves in a desired position, an endless belt, means for propelling said belt longitudinally over said table, and means for retaining fruit on said belt and lying along said line of travel above said belt and having its axis inclined.

13-14-19. A fruit grader comprising a frame, a  
 a horizontal central portion having  
 Aug. 17/03 table consisting of  $\Lambda$  a plurality of opposite hinged leaves, means for supporting said leaves in a desired position, an endless belt, means for propelling said belt longitudinally over said table, means for retaining fruit on said belt and lying along said line of travel above said belt and having its axis inclined, and means for adjusting each of said leaves independently of the others. [753]

14-15 20. A fruit grader comprising a frame,  
 a horizontal central portion having  
 Aug. 17/03 a table consisting of  $\Lambda$  a plurality of opposite hinged leaves, means for supporting said leaves in a desired position, an endless belt, means for causing said belt to travel longitudinally over said

table, means for gauging fruit on said belt, and lying along said line of travel above said belt and having its axis inclined, and means for adjusting each of said leaves independently of the others, cross bars on said frame under each leaf, a wedge interposed between each leaf and each cross bar and means for adjusting said wedge.

15-16-21. A fruit grader comprising a frame, a <sup>a horizontal central portion having</sup> table consisting of  $\Lambda$  a plurality of opposite hinged leaves, means for supporting said leaves in a desired position, an endless belt, means for causing said belt to travel longitudinally over said table, and means for retaining fruit on said belt, and lying along said line of travel above said belt and having its axis inclined, and means for adjusting each <sup>of said leaves independently of the others,</sup> a plurality of cross bars in said frame, a cross bar being under each leaf, a wedge interposed between each leaf and cross bar, and a plurality of levers pivoted to the frame, each lever being connected to <sup>a</sup>  $\Lambda$  the wedge.

16-17-22. A fruit grader comprising a frame, a table supported on the frame consisting of <sup>a horizontal central portion having</sup>  $\Lambda$  a plurality of pivoted leaves, a pulley rotably mounted at one end of said table, a frame slidably mounted on horizontal bars at the other end of said first-mentioned frame, a pulley rotably mounted on said slidable frame, a belt carried by said pulleys, the upper half of said belt lying along <sup>supported</sup> and  $\Lambda$  resting upon said table and leaves,

and means for drawing said pulley in a direction away from said first named pulley and thereby placing said belt under tension. [754]

17-18 23. A fruit grader comprising a frame, a table supported on the frame consisting of

a horizontal central portion having

Aug. 17/03  $\Lambda$  a plurality of leaves, a pulley rotably mounted at one end of said table, a frame slidably mounted on horizontal bars at the other end of said first-mentioned frame, a pulley rotably mounted on said slidable frame, a belt carried by said pulleys, the upper half of said belt lying along and resting upon said table and leaves, a flexible connection connected to said slidable frame, a sheave, supporting said flexible connection, a weight carried by the end of said flexible connection.

18-19 24. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, and stationary guards

and deflectors

Aug. 17/03  $\Lambda$  mounted above said conveying means.

19-20 25. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, and stationary guards mounted above said conveying means, each guard comprising offset walls, each well lying in differ-

Aug. 17/03 <sup>vertical</sup> ent  $\Lambda$  planes, the inner wall lying adjacent said grading rod.

20-21 26. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, guards for said conveying means, brackets connected to the frame and sup-

Aug. 17/03 <sup>guards</sup> porting said  $\Lambda$  arms. [755]

21-22 27. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, and stationary guards mounted above said conveying means and a deflector adjustably mounted near said guard and movable along said guard.

22-22 28. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, and stationary guards mounted above said conveying means, a deflector, a perforated lug thereon, a horizontal bracket mounted on said frame and parallel with said guard, said perforated lug being mounted on said bracket and a set screw through the lug and bearing against

the bracket, said deflector plate lying at an angle to said guard.

23-24 29. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, ~~and~~ stationary guards mounted above said conveying means, a deflector, Aug. 17/03 <sup>with</sup> A a perforated lug thereon, a horizontal bracket mounted on said frame and parallel with

<sup>one of</sup> Aug. 17/03 A said guards said perforated lug being mounted on said bracket and a set screw through the lug and bearing against the bracket said deflector Aug. 17/03 plate lying at an angle to said guard, and Aug. 17/03 being is parallel with the offset part of said guard. [756]

Aug. 17/03 <sup>having</sup> 25. 24-30. A fruit grader ~~compris-~~ing a frame, a table consisting of a depressed horizontal central portion, a plurality of leaves hinged on opposite sides, an endless belt movable along the upper surface of said table and leaves, Aug. 17/03 <sup>and</sup> A a relatively narrow reinforcing belt on the inside of said main belt, said reinforcing belt lying within said depressed central portion.

Aug. 17/03 <sup>having</sup> 26 25 31. A fruit grader ~~comprising~~ a frame, a table having a depressed horizontal central portion, a plurality of leaves hinged on opposite Aug. 17/03 <sup>of the central portion</sup> sides A an endless belt movable along the



upper surface of said table and leaves, a relatively narrow reinforcing belt on the inside of said main belt, said reinforcing belt lying within said de-

Aug. 17/03 pressed central portion, <sup>and</sup>  $\Lambda$  a pair of opposite ridges on the outside face of said conveyor belt.

Aug. 17/03 ~~27-26 32.~~ <sup>having</sup> A fruit grader  $\Lambda$  ~~comprising~~ a frame, a table mounted on the frame embracing a plurality of opposite hinged leaves, each leaf being provided with a concave depression along its outer edge, a conveyor belt mounted to move along the upper surface of said table and leaves, a pair of grading rods arranged along opposite sides of the leaves and inside of said depression, and means for rotating said grading rods.

~~28-27 33.~~ A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the

Aug. 17/03 <sup>a plurality of flexible</sup> line of travel, ~~an~~  $\Lambda$  inclined grading rods lying along said line of travel above said conveying means, means for rotating said grading rods, means for feeding fruit to one end of said conveying means, and a deflector at the other end of said conveying means. [757]

~~28-29 34.~~ A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of *of* travel above said conveying means, means for rotating said grading rods, means for feeding fruit to one end of said conveying means, a deflector at

the other end of said conveying means, a trough having a mouth arranged adjacent said deflector, said trough extending below the upper part of the belt, and having its discharged spout arranged above the central part of the lower part of the conveyor means.

29-~~30~~ 35. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, means for feeding fruit to one end of said conveying means, means at the other end of said conveying means for transferring fruit from the retaining portion of said conveying means, a longitudinal trough mounted above the retaining or lower part of said conveying means.

30-~~31~~ 36. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, means for feeding fruit to one end of said conveying means, means at the other end of said conveying means for transferring fruit to the returning portion of said conveying means, a longitudinal trough mounted above the returning or lower part of said conveying means, an auxiliary conveyor connecting with the rear end of said last named trough, said auxiliary comprising an endless belt mounted on a pair of pulleys, and means for driving said pulleys. [758]

31-32-37. A fruit grader comprising a frame, a pulley mounted in each end of said frame, a belt mounted on said pulleys, a conveyor connected to said first named belt, means for supporting the outer portions of said conveyor belt in inclined positions, the width of said pulleys being substantially the same as the width of the first named belt, a pair of grading rods mounted above said conveyor belt, each rod being near the outside edge of the conveyor belt and slightly above the belt, the space between the rods and the belt at the feeding end of said belt being less than the distance between said rods and said belt at points beyond said feeding end, and means for rotating said rods in opposite directions.

38. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, means for grading fruit lying along said line of travel above said conveying means and having its axis inclined, and means for feeding fruit to said conveying means embracing an inclined trough, an oscillatory feed regulator, the axis of which is mounted transversely of said feeding trough, and means for oscillating said feed regulator.

39. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, means for grading fruit lying along said line of travel above said conveying means and having its axis inclined, means for feeding fruit to said conveying means embracing an inclined trough, an oscillatory feed regulator, the axis of which is mounted transversely of said feeding trough, means for oscillating said feed regulator

and an open bottom trough under the discharge end of said first named trough and intermediate of said trough and said conveying means.

40. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, means for grading fruit lying along said line of travel above said inclined means and having its axis inclined, and means for feeding fruit to said conveying means embracing an inclined trough, an oscillatory feed regulator, the axis of which is mounted transversely of said feeding trough, means for oscillating said feed regulator, and an open bottom trough under the discharge end of said first named trough and intermediate of said trough and said conveying means, and padding on said intermediate trough.

~~32-33~~ 41. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, means for feeding fruit to said conveying means comprising an inclined trough, an oscillatory feed regulator mounted transversely of said trough, said feed regulator comprising a pair of segmental curved plates concentric with the axis of said feed regulator, a pair of flat plates mounted on the upper edges of said curved plates, the free edges of said flat plates being at angles to each other, and means for oscillating said feed regulator. [760]

~~33-34~~ 42. A fruit grader comprising means for conveying fruit along a definite line of travel, said

means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, means for feeding fruit to said conveying means comprising an inclined trough, an oscillatory feed regulator mounted transversely of said trough, said feed regulator comprising a pair of segmental curved plates concentric with the axis of said feed regulator, a pair of flat plates mounted on the upper edges of said curved plates the free edges of said flat plates being at angles to each other, and means for oscillating said feed regulator, the axis of said feed regulator being substantially in a line with the bottom of said inclined trough.

~~34-35~~ 43. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, means for grading fruit lying along said line of travel above said conveying means and having its axis inclined, means for feeding fruit to said conveying means embracing an inclined trough, an oscillatory feed regulator extending transversely of said inclined trough, means for oscillating said feed regulator, and a balanced tilting table mounted above said inclined trough.

~~35-36~~ 44. A fruit grader comprising a frame, a table supported by the frame embracing a horizontal portion, inclined hinged leaves, a pulley mounted on each end of the frame, a belt carried by the belt, said belt movable along over the upper faces of said table and leaves, means for feeding fruit to the upper



[761] face of said belt at one end, means at the other end of said belt for transferring fruit from the upper face of the belt to the lower part of the belt, a trough extending along the upper side of the lower part of said belt, said trough being slightly above the belt and at its rear end being offset and extending beyond the edge of the belt, and a pair of relatively short auxiliary troughs parallel with the main part of the longitudinal trough and adjacent the offset of the main trough.

36-37-45. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, a series of bins arranged along each side of the conveying means and means

Aug. 17/03 <sup>portions of</sup> for adjusting A said grading rod to various heights above the conveying means adjacent to each bin.

37-38 46. A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, means for supporting said conveying means embracing a table consisting of a central horizontal portion and a plurality of inclined hinged leaves arranged along each side of the horizontal part, a plurality of bins for the respective leaves, a bin being arranged adjacent each leaf, means for adjusting each leaf independently of the

others, a plurality of guards for the respective bins, each of said guards extending considerably each side of the partition between two bins. [762]

~~38-39-47.~~ A fruit grader comprising means for conveying fruit along a definite line of travel, said means being inclined transversely of the line of travel, an inclined grading rod lying along said line of travel above said conveying means, means for rotating said grading rod, means for feeding fruit to said conveying means comprising an inclined trough, an oscillatory feed regulator rotably mounted in said inclined trough, said feed regulator comprising a pair of segmental curved plates concentric to the axis of said feed regulator, a pair of flat plates, each plate being provided with elongated slots, screws passing through said slots and fastening said flat plates to said curved plates, and means for rocking said feed regulator.

~~39-40 48.~~ In a device of the character described, means for feeding fruit thereto consisting of an inclined trough, an oscillatory feed regulator arranged transversely of said trough, said feed regulator comprising a pair of curved segmental plates, concentric with the axis of said feed regulator, and a pair of flat plates adjustably secured at angles to said curved plates, and means for rocking said feed regulator.

~~40-41-49.~~ In a fruit grader, a frame, a driving shaft mounted at one end of the frame, a slidable regulating frame mounted on horizontal bars of the main frame, a shaft mounted on said slidable frame, a pulley mounted on the latter shaft a pulley mounted on

the driving shaft, a conveyor belt mounted on the two pulleys, a second shaft mounted on the frame, a pair of grading rods extending longitudinally of said conveyor belt, each rod being spaced slightly above the belt and inclined, a pair of pulleys on the second driving shaft, a pulley on the rear end of each grading rod, a belt connecting each of said pulleys with pulleys on the second driving shaft, an auxiliary [763] conveyor comprising a pair of pulleys, a belt connecting said pulleys, said auxiliary conveyor lying parallel to said conveyor belt, bins arranged along each side of the conveyor belt, guards in front of each bin, said guards embracing a plate offset to form two parallel planes, a horizontal bracket mounted on the outer edge of a leaf, an adjustable deflector comprising a plate provided with a perforated lug, said lug being slidably mounted on said bracket and a set screw passing through said lug and fastening the same to said bracket.

41-43-50. In a fruit grader, a frame, a driving shaft mounted at one end of the frame, a slidable regulating frame mounted on horizontal bars of the main frame, a shaft mounted on said slidable frame, a pulley mounted on the driving shaft, a traveling belt mounted on the two pulleys, a second driving shaft mounted on the frame, a pair of grading rods extending longitudinally of said belt, each rod lying near and spaced slightly above the belt, each rod being inclined, a pair of pulleys on the second driving shaft, a pulley on the rear end of each grading rod, a belt connecting each of said pulleys with pulleys on the second driving shaft, an auxiliary con-

veyor comprising a pair of pulleys and a belt connecting said pulleys, said auxiliary conveyor lying parallel to said conveyor belt, bins arranged along each side of the conveyor belt, guards in front of each bins, a guard embracing a plate offset to form two parallel planes, a plurality of brackets, a bracket being mounted on the edge of each leaf, an inclined deflector plate having a perforated lug, said lug being mounted on a bracket, the plane of said plate being parallel to the offset angular portion of the guard near which said deflector plate is attached. [764]

IN TESTIMONY WHEREOF I have signed my name to this specification, in the presence of two subscribing witnesses, at Los Angeles, in the County of Los Angeles, and State of California, this 7th day of January, 1903.

Inventor:

THOMAS STRAIN.

Witnesses:

GEORGE T. HACKLEY.

JULIA TOWNSEND. [765]

OATH.

State of California,  
County of Los Angeles,—ss.

Thomas Strain, the above-named petitioner, being duly sworn (or affirmed) deposes and says that he verily believed himself to be the original, first and sole inventor or discoverer of the ~~improvement in~~ Fruit Grader described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used before

his invention or discovery thereof; or patented or described in any printed publication in any country before his invention or discovery thereof or more than two years prior to this application; or in public use or on sale in the United States for more than two years prior to this application, and that no application for patent on said improvement has been

legal representatives or assigns

filed by him or his representatives in any foreign country except as follows. And said — states that he is a citizen of the United States and resident of — in the County of Los Angeles and State of California.

And said Thomas Strain states that he is a citizen of the United States and resident of Placentia in the County of Orange and State of California.

THOMAS STRAIN.

Sworn to and subscribed before me this 7th day of January, 1903.

[Seal]

EDW. L. PAYNE,

Notary Public in and for the County of Los Angeles,  
State of California. [766]



Paper No. 1.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

Div. XXV, Room 243.

Address only

“The Commissioner of Patents,  
Washington, D. C.,”

and not any official by name.

M. E. C.

DEPARTMENT OF THE INTERIOR.  
UNITED STATES PATENT OFFICE.

Washington, D. C., March 18, 1903.

MAILED “ “ “

Thomas Strain,

Care Townsend Bros.,

Los Angeles, California.

Please find below a communication from the  
your  
EXAMINER in charge of ~~the~~ application of  
#138,752, filed Jan. 12, 1903 for Fruit Grader.

F. I. ALLEN,

Commissioner of Patents.

This case has been examined.

Erase “elevator,” line 4, page 2, and insert “con-  
veyor.”

Erase “elevator,” line 10, page 3, and insert “con-  
veyor.”

Erase “elevator,” line 12, page 3, and insert “con-  
veyor.”

The part shown in connection with the bins in figs.  
2, 5 and 6, is a conveyor, not an elevator.

After "mounted on," line 7, page 3, insert "a shaft journaled in."

After "has," line 12, page 3, insert "secured in any suitable manner."

Erase "rests," line 1, page 4, and insert "is supported."

After "enlargement 23," line 6, page 4, insert "one face or side of which is normally in close contact with the frame 1."

Erase "elevator," end of line 10, page 4, and insert "conveyor."

After "part," line 3, page 6, insert "or run."

In fig. X, of the drawings the plates which are connected with the plates 49 are designated "51," while in the specification they are designated "52." In the said figure, the pivot of the feeder is designated "52." Correction in the drawings is necessary to agree with the specification—see lines 19–26, inclusive, page 6. [767]

Where in the drawings is the trough shown slotted as 47a?—see line 23, page 7.

After "ridges 10a," line 3, page 8, insert, "extending longitudinally on the outer face thereof."

As shown in the drawings, the space between the grading rod 20 and the belt 10 seems to be uniform—see fig. 5—also lines 12 and 13, page 8. In fig. 5 the designation "10" is improperly applied to the right-hand end of the rod 20 instead of to the belt.

As shown in fig. 3, it would appear that the fruit rests against one wall of the guard 36 before it passes under the grading rod—compare with lines 24–26, page 8.

Claims 1 and 2 are met by Ish, 458,422, Aug. 25, 1891; and Banker, 147,301, Fed. 10, 1874—see, also, Hutchins, 456,092, July 14, 1891.

Claims 3, 5 and 6 are met by Ish, cited.

Claim 4 is met by Banker, cited.

Claim 7 is obscure. What parts are meant by “means for supporting said inclined conveying means embracing a pair of upright bars”?—see line 4 thereof.

Claim 8 is objectionable for the same reason as claim 7, also. What “arm pivoted between each pair of bars; and what means for squeezing each arm beneath the bars and thereby frictionally holding each arm in position”?—see lines 5–7, inclusive, thereof.

Where in the specification is there any allusion to any other frictional holding than that of the arm 21?—and there is no squeezing of said arms between bars.

Claims 9, 10, 11 and 12 are met by Banker, cited. Where in the specifications is “means embracing opposite substantially symmetrical portions” mentioned?—see line 3 of each of said claims.

Claims 13 and 14 are met by Ish, cited.

Claims 18, 19, 20, 21, 22 and 23 are incorrect in the [768] statement of “a table consisting of a plurality of opposite hinged leaves.” The table consists of a central horizontal depressed portion and the hinged leaves—see description thereof on page 3 of the specification.

In reference to claims 20 and 21, are not the “means for supporting said leaves in a desired posi-

tion," lines 2 and 3 in each thereof the same as the "means for adjusting each of the said leaves independently," line 7 thereof?

Erase "resting," line 7, claim 22, and insert, "supported."

Claim 24 is met by Banker, cited; see, also, Richards, 654,281, July 24, 1900, showing stationary guards.

After "different," line 7, claim 25, insert "vertical."

There is something omitted from claim 26. What "said arms" are referred to in line 6 thereof?

Erase the comma (,) after "deflector," line 6, claim 29, and insert "with" in place thereof.

Erase "plate," line 10, claim 29.

Erase "being is," line 11, claim 29.

Change "said guard," line 8, claim 29 to read "one of said guards."

The elements named in claims 30, 31 and 32 are not sufficient to constitute an operative fruit grader, for which reason it is suggested that "comprising" in line 1 in each of said claims be changed to "having."

Claim 30 should also be further corrected by inserting "and" after "leaves," line 4 thereof.

After "sides," line 3, claim 31, insert "of said central portion."

After "portion," line 6, claim 31, insert "and."

Claim 33 is substantially met by Ish, cited, merely adding "a deflector" in view of the common use of such, as shown in Nelson, 713,484, Nov. 11, 1902.

After "conveyor," line 3, claim 37, insert "belt."  
[769]

Where in the specification is the foundation for the statement “the width of said pulleys being substantially the same as the width of the first named belt”?—see lines 5 and 6, claim 37.

Claims 38 and 39 are for aggregations, being for the grading devices of either Ish or Banker, cited, with the feeding device of Rice, 589,141, Aug. 31, 1897. The part G in said patent is a “regulator” as well as a “separator.”

Claim 40 is met by the same patents—it being a common expedient to pad or cover with soft material parts of a fruit grader so as to protect the fruit from injury—see Ayer, 363,974, May 31, 1887.

Claim 45 is met by Ish, cited, in views of Ayer, cited.

Erase “a plurality of brackets,” lines 15 and 16, claim 50.

Claims 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 24, 33, 38, 39, 40 and 45 are rejected on the references cited, and claims 7, 8, 18, 19, 20, 21, 22, 23, 26 are objectionable for the reasons stated, while the other claims referred to need correction.

A. McNAUGHT,

Act’g Examiner,

Division XXV.

RA. [770]



ROOM 243

MAIL ROOM,

DIV. 25

AUG. 17, 1903.

PATENT OFFICE,

U. S. PATENT OFFICE.

AUG. 18, 1903.

DIVISION XXV.

TOWNSEND BROS.

Registered Attorneys.

No. 370.

IN THE UNITED STATES PATENT OFFICE.

James R. Townsend.

Francis M. Townsend.

430-431-432-433 Bradbury Block, 304-306 S.  
Broadway.

Serial No. 138,752. Paper No. 2.

Thomas Strain

Fruit Grader.

Los Angeles, Cal. Aug. 6, 1903. 190

Filed Jan. 12, 1903. S. No. 138,752.

Dated.

No.

Hon. Commissioner of Patents,

Sir:—

Examiner's letter of March 18, 1903, and references cited have been considered.

We amend as follows:

Page 2, line 4 change "elevators" to—conveyors—.

Page 3, line 7, after "on" insert—A shaft journaled in—line 12, after "has" insert—secured in any suitable manner—.

Page 4, line 1, cancel "rests" and substitute—is

supported—; line 6, after “23,” insert—one face or side of which is normally in close contact with the frame 1—; line 10 change “elevator” to—conveyor—.

Page 6, line 3, after “part” insert—or run—.

Page 7, line 23, change period after “trough” to a comma; change “The” to—the—; cancel “is” and substitute—being—after—“47a” insert—to receive the bar 58a—; Page 6 lines 20 and 22 change numeral “52” to—51—; line 20 change numeral “51” to—52.

Page 8, line 3, after 10a insert—extending longitudinally on the outer face thereof—.

A separate letter is written requesting correction of Fig. X to refer by numeral to slotted part of trough 47, [771] which receives bar 58a.

The inclination of the grading rod 20, although slight may be clearly seen by the unaided eye by comparing the distances between rod 20 and the light line just above it, at opposite ends of Fig. V. In the drawing the difference is a good sixteenth of an inch—also compare elevation of its ends with other lines parallel with each other below the grading rod.

If the Examiner will apply compasses he will distinguish the difference but it is clearly evident without measuring.

Page 8, line 25, after “rod 20” insert—which can only occur at clear spaces between consecutive guards 26,—line 26, after “against” insert—the lower section of—

Page 9, line 1, change “grader” to—guard—; line 4, before “offset” insert—deflector 36b which stands in front of the—same line before “guard” insert—next—.

Cancel claims 1, 2, and 3 as they are clearly met.

Reconsideration and allowance is requested of claim 4. Where does Banker show “means for adjusting the grading rod relatively to the inclined fruit conveyor”? Will the Examiner please indicate by reference letter?

Reconsideration and allowance of claims 5 and 6 is requested. Where does Ish show “a series of arms supporting the grading rod at intervals”?

Claim 7, line 3, change “means” to—a table—; line 4, cancel “embracing a pair of upright bars.”

Claim 8, line 3, change “means” to—a table—; line 4 place a comma after “means” and cancel “embracing.” Insert after “bars”—supporting the table—. Lines 5, 6 and 7, cancel “means for squeezing each arm . . . . in position.” [772]

Claims 9, 10, 11 and 12, in line 1 of each after “comprising” insert—traveling—in line 2 of each

after “embracing” insert—movable—; in line 3 of each cancel “substantally symmetrical” and substitute—inclined—.

Claims 9, 10, 11 and 12 are now allowable as Banker does not have an inclined traveling conveyor.

Cancel claims 13 and 14 as they are clearly met.

Claims 18, 19, 20, 21, 22 and 23 in line 2 of each before “a plurality” insert—a horizontal central portion having—.

Claims 20 and 21, lines 7 and 8 in each cancel “and means for adjusting each of said leaves independently of the others.”

Claim 22, line 7, change “resting” to—supported—.

Claim 24, line 5 after “guards” insert—and deflectors—.

Claim 25, line 7 after “different” insert—vertical—

Claim 26, line 6, change “arms” to—guards—.

Claim 29, line 5, cancel “and”; line 6 cancel comma after “deflector” and insert—with—; line 8 after “with” insert—one of—; change “guard” to—guards—; line 10 cancel “plate”; line 11 cancel “being is.”

Claims 30, 31 and 32 in line 1 of each change “comprising” to—having—.

Claim 30, line 4 after “leaves,” insert—and—.

Claim 31, line 3, after “sides,” insert—of the central portion—line 6, after “portions,” insert—and—.

Claim 33, line 3, cancel “an” and substitute—a plurality of—change “rod” to—rods— line 5 change rod to—rods—. [773]

Claim 37, line 3, after “conveyor” insert—belt— lines 5 and 6 cancel “the width of said pulleys . . . first named belt,”

Cancel claims 38, 39, and 40 as being for aggregations.

Claim 45, line 7 before “said” insert—portions of— —.

Re-number claims 4 to 12 inclusive as 1 to 9. Re-number claims 15 to 37 inclusive as 10 to 32. Re-number claims 41 to 50 inclusive as 33 to 42.

The case now seems in condition for allowance.

Very respectfully,

TOWNSEND BROS.,

Attorneys for Strain.

FMT.

G. T. HACKLEY.

S. [774]



[THAT PORTION OF THIS EXHIBIT, VIZ., PHOTOGRAPH OF FIGURES VII, VIII, IX, X, XII, WHICH IS DUPLICATED IN COMPLAINANT'S EXHIBIT NO. 3, SHEET 3 OF PATENT, IS OMITTED HEREFROM.]

[Endorsed]: 142,387. May 25, 1916. [775]

Paper #2.

ACCOUNT.

MAILED

AUG. 11, 1903.

Townsend Bros.

ROOM 243

DIV. 25.

Telephone Main 347

Protection to

Industrial Property

In All Countries.

Trade Marks Prints & Labels

TOWNSEND BROS.

Registered Attorneys

G. D. No. 370.

IN THE UNITED STATES PATENT OFFICE.

430-431-432-433 BRADBURY BLOCK, 304-306

S. Broadway

James R. Townsend,

Francis M. Townsend.

Correspondents

in the

Principal Cities

of the World

Patents Copyrights.

Western Union Code Used

Telegraphic & Cable Address

"Patents Los Angeles."

Los Angeles, Cal., Aug. 6, 1903. 190

Thomas Strain

Fruit Grader.

Filed Jan. 12, 1903. No. 138,752

Date No.

Hon. Commissioner of Patents,

Sir:

Please apply the reference numerals to Figs. X. and XII. as indicated in red on the enclosed print and charge to our account.

Very respectfully,

TOWNSEND BROS.,

Attys. for Strain.

FMT.

G. T. HACKLEY

S.

[Endorsed]: Townsend Bros. C. U. S. Patent Office. Number 142,387. Received Aug. 17, 1903. Chief Clerk. Recd. in Div. C. Aug. 17, 1903. Notice Ap. 8/17/03 S. Corrected and to Exam. Aug. 21/03. No charge. Forward to Mail Room for Div. 25, Aug. 21/03. Mail Room, Transfer to Div. 25, 8.22.03. [776]

M. E. C.

Paper No. 3

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

DIV. 25, Room 315.

Address only

“The Commissioner of Patents,

Washington, D. C.,”

and not any official by name.

DEPARTMENT OF THE INTERIOR.  
UNITED STATES PATENT OFFICE.

Washington, D. C., Sept. 14, 1903.

MAILED “ “ “

Thomas Strain,  
Care Townsend Bros.,  
Los Angeles, Cal.

Please find below a communication from the EX-  
your  
AMINER in charge of the application of #138,752,  
filed Jan. 12, 1903, for Fruit Grader.

F. I. ALLEN,  
Commissioner of Patents.

This case has been reconsidered in view of amend-  
ment filed Aug. 17, 1903.

Claim 1 is met by Banker, cited. The adjustment of the grading rod relative to the inclined conveyor of the case at bar is merely a reversal of the adjustment of the inclined conveyor relative to the grading rod of the device in said patent.

Claim 2 is met by Ish, cited. To merely place other arms intermediate of the end supports of the grading rod to aid in supporting said rod is mere duplication.

Claim 6 is met by Ish, cited. To duplicate the traveling belt *f* of the said patent would not be invention.

Claims 7 and 8 are met by Ish, cited, in view of Banker, cited. Mere substitution is not invention.

Claim 9 is met by Banker cited, in view of the traveling inclined conveyor of the Ish patent.

Should not “the wedge,” last line, claim 16, be “a wedge”?

Claim 28 is met by Ish, cited, in view of the rotating grading rods of the device shown in the Banker patent, cited. [777]

Erase "a plurality of brackets," lines 15 and 16, claim 42, as superfluous.

Claims 1, 2, 6, 7, 8, 9, and 28 are rejected.

T. F. MITCHELL,  
Act'g Examiner, Div. XXV.

R. A. [778]

Serial No. 138,752. Paper No. 4.

PATENT OFFICE.

MAIL ROOM.

Oct. 7, 1903.

Oct. 6, 1903.

DIVISION XXV.

U. S. PATENT OFFICE.

MAILED

TO PATENT OFFICE.

SEP. 6, 1903.

Townsend Bros.

Room 315

Div. 25.

Paper No. 4.

TOWNSEND BROS.

Registered Attorneys.

No. 370.

IN THE UNITED STATES PATENT OFFICE.

321-322-323-324 Potomac Block

(Opposite City Hall)

217 S. Broadway.

Correspondents

in the

Principal Cities

of the World.

Western Union Code Used.  
Telegraphic & Cable Address.  
“Patents Los Angeles”

Telephone Main 347  
Protection to  
Industrial Property  
In all Countries  
Trade Marks, Prints & Labels.

James R. Townsend. Francis M. Townsend.  
Los Angeles, Cal. Sept. 29, 1903, 190

Thomas Strain  
Fruit Grader.

Filed Jan. 12, 1903. S. No. 138,752.

Dated No.

Hon. Commissioner of Patents,

Sir:—

Examiner's letter of Sept. 14, 1903, has been considered.

In amendment dated Aug. 6. 1903, mailed Aug. 11, 1903, applicant's attorneys asked the Examiner to point out in the Banker reference mechanism, devices, or “means for adjusting said grading rod relatively to the inclined fruit conveyor.” It is thought the Examiner overlooked this request in his letter and the attorneys respectfully request that the Examiner do this.

Claim 1, former claim 4, cannot consistently be cancelled unless the combination of elements enumerated in that claim are old. Attorneys are unable to find in Banker any device, mechanism or means for adjusting the grading rod relatively to the conveyor, nor can they find any means for adjusting



the conveyor relatively to the grading rod though the first paragraph of Examiner's letter implies that such a construction is shown.

Attorneys find the following clause in said patent: "In practice the assorting board will be adjustable toward and from the roller." The above is merely a statement of what *can* [779] *be done*—not what already exists. There is not even a hint in the clause as to how to construct the mechanism for accomplishing the purpose. Purpose is one thing. A tangible mechanism such as applicant shows is another thing.

We amend as follows:—

---

Page 4 after line 10 insert—The grading rods are comparatively slender as shown and are flexible to a considerable extent and are supported at intervals by the arms 21 so that any section of a grading rod may be adjusted relatively to the conveyor. For instance, an intermediate section may be adjusted to the desired height above the conveyor without disturbing the adjustment of the other sections. When each section of the grading rods has been adjusted, as desired, a grading rod may not be straight but the flexibility of the rods and comparatively slow speed at which they run, permit of such adjustment. The general line of a grading rod is of course inclined to the conveyor, but the arms 21 are provided so that when they are adjusted each section of a rod lying between adjacent arms may be substantially parallel with the conveyor.

---

Cancel line 11, Line 12, cancel "by the arms 21."

---

Claim 2, cancel last two lines and substitute—

<sup>A1</sup> and means for adjusting intermediate sections  
of the grading rod relatively to the grading rod.

Claim 6 line 3, before “means” insert—flexible—

Claim 7 line 4 before “inclined” insert—flexible—

Claim 8 line 5 before “inclined” insert—flexible—

Claim 9 line 4 before “grading” insert—flexible—

Claim 28 line 3 before “inclined” insert—flexible—

Claim 16 last line, change “the” to—a—

Allowance seems now in order.

Very respectfully,

TOWNSEND BROS.,

Attys. for Strain.

FMT.

GTH.

G. T. HACKLEY.

J. [780]

M. E. C.

Paper No. 5.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

Div. 25, Room 315.

Address only

“The Commissioner of Patents,  
Washington, D. C.,”  
and not any official by name.

DEPARTMENT OF THE INTERIOR.  
UNITED STATES PATENT OFFICE.

Washington, D. C., October, 26, 1903.

MAILED October 26, 1903.

Thomas Strain,

Care Townsend Bros.,

Los Angeles, California.

Please find below a communication from the EX-  
your  
AMINER in charge of the application of #138,752,  
filed Jan. 12, 1903, for Fruit Grader.

F. I. ALLEN,

Commissioner of Patents.

Amendment filed Oct. 6, 1903.

The matter sought to be inserted by amendment after line 10, page 4, is objectionable as new matter. Nothing is said in the specification as originally filed of the grading rods being slender or “flexible,” or that an “intermediate section may be adjusted to the desired height above the conveyor without distributing the adjustment of the other sections.”

The adjustment of the conveyor B, in the Banker device, is the reversal of the grading rods in applicant's device. To adjust the conveyer relative to the frame is an adjustment relative to the rods J on the frame. In view of the disclosure in said patent, there is no invention in broadly employing "adjusting means" though a specific form of adjusting means, if new, might be patentable. The amendment of "flexible" to the several claims at issue is unwarranted in view of the failure of such disclosure in the specification as originally filed and such amendment should be erased from said claims. When this is complied with the claims (1, 2, 6, 7, 8, 9 and 28) stand rejected for the reasons and on the references given in office letter of date Sept. 14, 1903. [781]

Examiner has nowhere said that Banker shows or describes "means for adjusting the grading rod relative to the inclined fruit conveyer" but such is a "mere reversal" of an adjustable conveyer, and has no patentability over a construction showing or describing fixed grading rods and an adjustable conveyer.

LEWIS B. WYNNE,  
Examiner, Div. XXV.

R. A. [782]

Paper # 5.

Serial No. 138,752 Paper No. 6.

MAIL ROOM.

MAILED.

Dec. 29, 1903.

TO PATENT OFFICE.

U, S. PATENT OFFICE.

Dec.. 23, 1902.

PATENT OFFICE.

Townsend Bros.

Dec. 30, 1903.

DIVISION XXV.

Room 315.

Telephone Main 347.

Div. 25.

Protection to

Industrial Property

Correspondents in the

In all Countries

Principal Cities

Trade Marks, Prints &amp; Labels

Of the

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Western Union Code Used

Telegraphic &amp; Cable Address

“Patents Los Angeles.”

TOWNSEND BROS.

Registered Attorneys.

No. 370.

IN THE UNITED STATES PATENT OFFICE.

James R. Townsend,

Francis M. Townsend.

430-431-432-433 Bradbury Block 304-306 S. Broadway.

Thomas Strain,

Fruit Grader,

Los Angeles, Cal. Dec. 23, 1903, 190

Filed Jan. 12, 1903, S. No. 138,752.

Dated

No.



Hon. Commissioner of Patents,  
Sir:—

Office letter of Oct. 28, 1903, has been considered.

The Examiner's attention is directed to last paragraph page 9 of the specification, especially to lines 2 and 3 of the paragraph. Said paragraph in connection with the drawings gives plenty of basis for claiming a flexible grading rod and for the admission of the amplification of that point in the last amendment. See also lines 18 to 24, same page.

The reference Banker et al. 147,301 should be withdrawn as it discloses no means (causative agency or instrumentality) for adjusting what the Examiner terms "conveyor B." (B is an assorting board, not a conveyor as stated by Examiner).

See Gordon et al. v. Warden et al. Supreme Court Rep. Vol. 14, pp. 32 & 33.

"A mere suggestion in the specification of a patent that it may be desirable to make a certain part of the machine adjustable does not operate to anticipate an invention for securing such adjustability.

No means were provided or method pointed out whereby such result could be obtained." [783]

If Banker disclosed one means for carrying out his suggestion then it might well be that applicant would only be entitled to his specific means. But Banker does not disclose one means. If he does, what is it?

"All doubt (if any) should be resolved in favor

of the applicant who has materially advanced the art.”

Very respectfully,  
TOWNSEND BROS.,  
Attys. for Strain.

FMT—A.

G. T. HACKLEY. [784]

M. E. C.

Paper No. 7.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

Div. 25, Room 315,

Address only

“The Commissioner of Patents,

“Washington, D. C.,”

and not any official by name.

DEPARTMENT OF THE INTERIOR.  
UNITED STATES PATENT OFFICE.

Washington, D. C., January 14, 1904.

Thomas Strain,

Care Townsend Bros.,

Los Angeles, California.

Please find below a communication from the Ex-  
your  
aminer in charge of the application of #138,752,  
filed Jan. 12, 1903, for Fruit Grader.

F. I. ALLEN,  
Commissioner of Patents.

Argument filed Dec. 29, 1903.

The objection urged against the insertion of

amendment after line 10, page 4, is withdrawn.

Claim 1 is still held to be met by Banker, cited. The adjustment of the grading rod relative to the inclined conveyor in the claim at bar is merely a reversal of the adjustment of the inclined conveyor relative to the grading rod of the device in the cited patent.

Change "blet," line 8, claim 32, to "belt."

What "plurality of brackets" are alluded to in line 16, claim 42?

Claim 1 is rejected.

LEWIS B. WYNNE,

*R*xaminer,

R.A.

Division XXV. [785]

Serial No. 138,752, Paper No. 8, Amdt. & Arg.

MAIL ROOM.

MAILED

Jan. 28, 1904.

TO PATENT OFFICE

U. S. PATENT OFFICE.

Jan. 22, 1904.

ROOM 515.

Townsend Bros.

DIV. 25.

PATENT OFFICE.

Jan. 29, 1904.

DIVISION XXV.

Paper #6.

Correspondents

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Telephone Main 347

Western Union Code Used

Telegraphic & Cable Address

"Patents Los Angeles."

## TOWNSEND BROS.

Registered Attorneys.

No. 370.

IN THE UNITED STATES PATENT OFFICE.

James R. Townsend                      Francis M. Townsend  
430-431-432-433   Bradbury Block, 304-306 S.  
Broadway.

Los Angeles, Cal., Jan. 22, 1904, 190

Thomas Strain

Fruit Grader

File Jan. 12, 1903. S. No. 138,752.

Dated                      No.

Hon. Commissioner of Patents,

Sir:—

Examiner's letter of Jan. 14, 1904, has been considered.

We amend as follows:—

Claim 32, line 8, change “blet” to—belt—.

---

The “plurality of brackets” alluded to in claim  
42, line 16, are brackets 36a.

It is thought that the attorneys have not made themselves clear to the Examiner regarding the Banker reference cited against claim 1.

No objection to the reference is made as regards “reversal.” The point the attorneys make is that—reversal or no reversal, the Banker reference does not disclose any device for adjusting any part of his machine, and that applicant's claim 1 sets forth a new, useful and patentable device.

Applicant does not claim (quoting Examiner):  
“an adjustable grading rod” (or sorting board—

'reversal) but claims (1) a grading rod, and (2) means for adjusting the grading rod. [786]

Claim 1 contains the following elements:—

a—means for conveying fruit.

b—inclined grading rod.

c—means for rotating grading rod.

d—means for adjusting grading rod.

The Examiner has previously been asked to point out in Banker a part which anticipates *d*. No such part has been pointed out because the Banker reference contains no such part.

To illustrate in another way: Assume that Banker does actually disclose an assorting board which may be adjusted. Applicant goes still further because he provides a means for adjusting the grading rod. A collar held in place on a rod by a set screw is adjustable but the set screw is not means for adjusting it on the rod. The set screw is a means for clamping it after it has been adjusted.

such set screw is a means allowing the collar to be adjusted but is not a device for shifting it this way and that to push it into the proper place. The assorting board of Banker could be made susceptible of adjustment or adjustable and then a lever, screw, wedge, or some other contrivance could be designed to shift, i. e. to adjust it. But Banker neither shows nor describes a lever or other means for adjusting the assorting board. Applicant does show a means for adjusting his grading rod.

Banker merely states that his "assorting board will be adjustable"; he does not say that he will employ a means for adjusting it; evidently he in-



tends to do that by hand. Applicant not only makes his grading rod adjustable but goes further and invents a means for adjusting it.

Telescopes in their first stages were adjustable on standards and were moved into the position desired as near as could be done by the hand, but later they were improved [787] by the addition of means for adjusting them. In the highest state of the art the means for adjusting the telescope works automatically and keeps always pointing at a certain body so that a photograph may be taken.

Allowance is requested.

Very respectfully,

TOWNSEND BROS.,

G. T. HACKLEY.

Attorneys for Strain.

FSL.—M. [788]

Paper No. 9.

M. E. C.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

Div. 25. Room 315.

Address only

“The Commissioner of Patents,

Washington, D. C.,”

and not any official by name.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., February 23, 1904.

MAILED “ “ “

Thomas Strain,

Care Townsend Bros.,

Los Angeles, California.

Please find below a communication from the EX-  
your  
AMINER in charge of the application #138,752,  
filed January 12, 1903, for Fruit Grader.

F. I. ALLEN,  
Commissioner of Patents.

Amendment filed January 28, 1904.

In regard to attorney's argument as to "means for adjusting grading rod" in the Banker device, it is true none are shown but Banker, in his specification alludes to the assorting board B being adjustable. It would be a mere mechanical expedient to provide the means to so adjust the board. The claim (1) however is also met by Hutchins, #465,856, December 29, 1891 (see lines 24 and 25, page 2 of the specification thereof). It is a common every day affair to make the guide rollers in devices of this character adjustable. See Jones, #430,031, June 20, 1890, or Gunckel, #282,719, August 7, 1883, Claim 1 is rejected.

LEWIS B. WYNNE,  
Examiner,  
Division XXV.

R.A. [789]

Paper #10.

MAIL ROOM. TO PATENT OFFICE  
 APR. 4, 1904. MAILED  
 U. S. PATENT OFFICE. MAR. 29, 1904.  
 PATENT OFFICE. Townsend Bros.  
 APR. 5, 1904.  
 DIVISION XXV.  
 ROOM 315.  
 DIV. 25

TOWNSEND BROS.

Registered Attorneys.

No. 370.

IN THE UNITED STATES PATENT OFFICE.

Correspondents	Telephone Main 347
in the Principal	Protection to Industrial
Cities of the	Property in All Countries
World.	Trade Marks, Prints & Labels
Patents Copyrights.	

James R. Townsend. Francis M. Townsend.  
 430-431-432-433 Bradbury Block, 304-306 S. Broad-  
 way.

Western Union Code Used  
 Telegraphic & Cable Address  
 "Patents Los Angeles"

Thomas Strain,  
 Fruit Grader.

Filed Jan. 12, 1903 S. No. 138,752.

Dated No.

Serial No. 138,752 Paper No. 10. Amendment.

Los Angeles, Cal., Mch. 28, 1904, 190

Hon. Commissioner of Patents,

Sir:—

In response to Examiner's letter of Feb. 23, 1904,  
we amend as follows:—

Page 1, line 9, change "affectively" to effectively  
—.

---

Line 14, change "is" to—are—.

---

Cancel claim 1 and renumber claims 2 to 42 as 1  
to 41.

---

Allowance is requested.

Very respectfully,

TOWNSEND BROS.,

Attys. for Strain.

FMT—A.

A. P. KNIGHT. [790]

M. A. M.

e Division

Serial No. 138,752.

ications should be addressed to

e Commissioner of Patents,

Washington, D. C."

DEPARTMENT OF THE INTERIOR.

U. S. PATENT OFFICE,

Washington, D. C., April 22, 1904.

Thomas Strain,

% Townsend Bros.,

Los Angeles,

Cal.

SIR:—

Your APPLICATION for a patent for an IMPROVEMENT IN

Fruit Grader,

Filed Jan. 12, 1903, 1—, has been examined and ALLOWED.


The final fee, TWENTY DOLLARS, must be paid, and the Letters Patent bear date as of a day not later than SIX MONTHS from the time of this present notice of allowance.


If the final fee is not paid within that period the patent will be withheld, and your only relief will be by a renewal of the application, with additional fees, under the provisions of Section 4897, Revised Statutes. The Office aims to deliver patents upon the day of their date, and on which their term begins to run; but to do this properly applicants will be expected to pay their final fees at least TWENTY DAYS prior to the conclusion of the six months allowed them by law. The printing, photolithographing, and engrossing of the several patent parts, preparatory to final signing and sealing, will consume the intervening time, and such work will not be done until after payment of the necessary fees.

When you send the final fee you will also send, DISTINCTLY AND PLAINLY WRITTEN, the name of the INVENTOR and TITLE OF INVENTION AS ABOVE GIVEN, DATE OF ALLOWANCE (which is the date of this circular), DATE OF FILING, and, if assigned, the NAMES OF THE ASSIGNEES.



[Printed across face and margin:]

 IN REMITTING THE FINAL FEE GIVE THE SERIAL NUMBER AT THE HEAD OF THIS NOTICE.

 If payment is made by check or draft, the credit allowed is subject to the collection of the same.


If you desire to have the patent issue to ASSIGNEES, an assignment containing a REQUEST to that effect, together with [791] the FEE for recording the same, must be filed in this Office on or before the date of payment of final fee.

After issue of the patent uncertified copies of the drawings and specifications may be purchased at the price of 5 cents each. The money should accompany the order. Postage stamps will not be received.

Respectfully,

F. I. ALLEN,

Commissioner of Patents.

 After allowance, and prior to payment of the final fee, applicants should carefully scrutinize the description to see that their statements and language are correct, as mistakes not incurred through the fault of the office, and not affording legal grounds for reissues, will not be corrected after the delivery of the letters patent to the patentee or his agent.  
[792]

## CERTIFICATE OF DEPOSIT.

\$20— RECEIVED

OCT. 26, 1904 S.

CHIEF CLERK U. S.

PATENT OFFICE.

## MEMORANDUM

of

FEE PAID AT UNITED STATES PATENT  
OFFICE.

(Be careful to give correct Serial No.)

Serial No. 138,752, 191—.

INVENTOR:

Thomas Strain.

Patent to be issued to

Thomas Strain.

Name of Invention, as allowed:

Fruit and Nut Grader.

Date of Payment:

FEE:

“20.00.

Date of Filing:

Jan. 12, 1903.

Date of Circular of Allowance:

Apr. 22, 1903.

The Commissioner of Patents will please apply the  
accompanying fee as indicated above.

TOWNSEND BROS.,

A. Attorney.

Send Patent to

From  
TOWNSEND BROS.

Patents  
Bradbury Block  
Los Angeles, Cal. [793]

FOQ.

Issue and Gazette Division      Serial No. 138752.  
All communications should be  
addressed to "The Commissioner  
of Patents," Washington, D. C.

DEPARTMENT OF THE INTERIOR.  
UNITED STATES PATENT OFFICE.

Washington, D. C., October 26, 1904.

Thos. Strain,  
C/o Townsend Bros.,  
Bradbury Block,  
Los Angeles, Cal.

SIR:

Your application for a patent for an IMPROVE-  
MENT IN

Fruit Graders.

filed January 12, 1903, 190, has been examined and  
again ALLOWED.

The final fee, TWENTY DOLLARS, in the above-  
entitled case was received October 26, 1904.

Very respectfully,  
F. I. ALLEN,  
Commissioner of Patents. [794]

[THOSE PORTIONS OF THIS EXHIBIT WHICH ARE DUPLICATED IN COMPLAINANT'S EXHIBIT NO. 3 ARE OMITTED HEREFROM.] [795]

1903.

CONTENTS:

130. THRASHING,  
Fruit and Vegetable Separators.

Print

Application ——— papers. O. K.

1. Rej'n Mar. 18, 1903.
2. Amendment Aug. 17, 1903.
3. Rej. Sept. 14, 1904.
4. Amendment A Oct. 6, 1903.
5. Rej'n Oct. 28, 1903.
6. Argument Dec. 29, 1903.
7. Rejtd. Jany. 14, 1904.
8. Amendment and Argt. Jan. 28, 1904.
9. Rejtd. Feby. 23, 1904.
10. Amendment Apr. 4, 1904.

TITLE:

Improvement in Fruit Grader. [796]

**Defendant's Exhibit "C"—Letters Patent to Henry  
H. Hutchins for Assorting Machine.**

[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "C." Filed  
July 12, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.



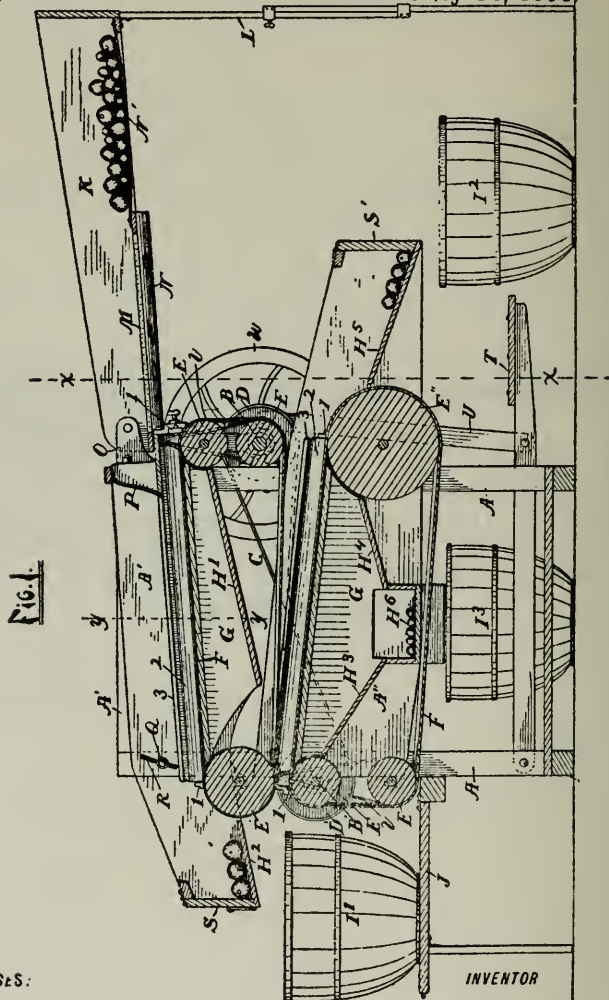
(No Model.)

2 Sheets—Sheet 1

# H. H. HUTCHINS. ASSORTING MACHINE.

No. 456,092.

Patented July 14, 1891



WITNESSES:

*R. Buchanan*  
*John C. Pierce.*

INVENTOR

Henry H. Hutchins

*Monilton Rogers*  
ATTORNEYS

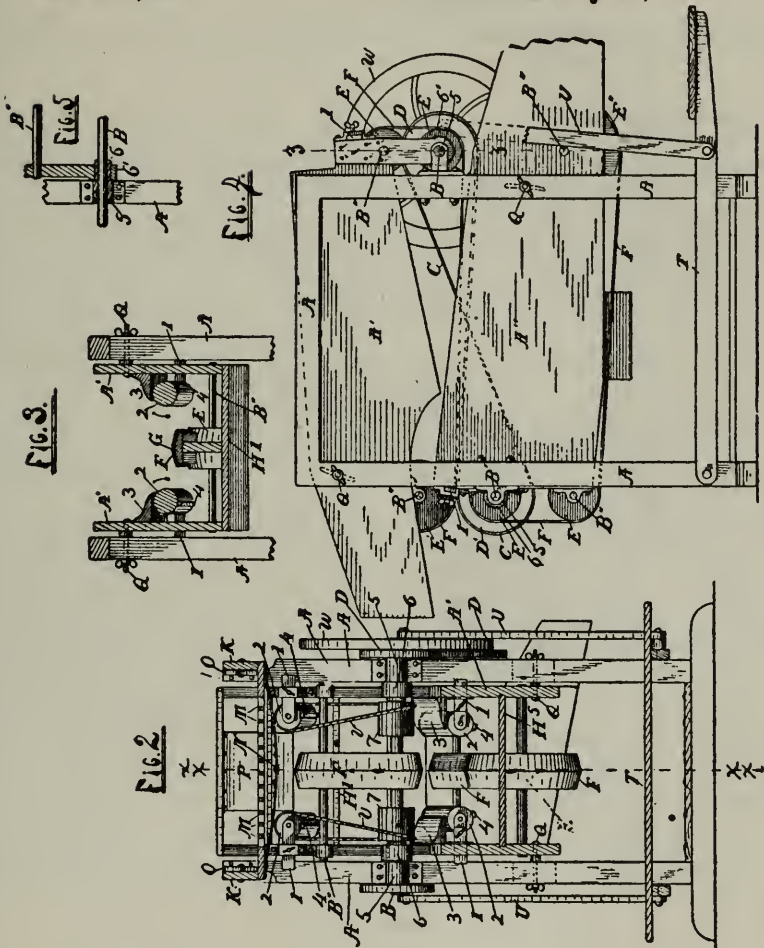
(No Model.)

2 Sheets—Sheet 2

H. H. HUTCHINS.  
ASSORTING MACHINE.

No. 456,092.

Patented July 14, 1891.



WITNESSES

*John P. Hutchins*  
*John P. Hutchins*

INVENTOR

Henry H. Hutchins.

BY

*Moulton & Rogers*  
ATTORNEYS

## UNITED STATES PATENT OFFICE.

HENRY H. HUTCHINS, OF GANGES, MICHIGAN.

## ASSORTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 456,092, dated July 14, 1891.

Application filed January 30, 1890. Serial No. 338,693. (No Model.)

*To all whom it may concern:*

Be it known that I, HENRY H. HUTCHINS, a citizen of the United States, residing at Ganges, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Assorting-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to assorting-machines for fruit and vegetables; and it consists in the construction, combination, and arrangement of the various parts, as hereinafter described, and particularly pointed out in the claims, reference being had to the accompanying drawings, wherein—

Figure 1 is a longitudinal vertical sectional view on the line *x x x x* of Fig. 2; Fig. 2, a rear end elevation, partly in section, on the line *x x* of Fig. 1; Fig. 3, a detail showing a vertical section of the upper system on the line *y y* of Fig. 1; Fig. 4, a side elevation with the end of lower spout and door *S'* of Fig. 1 broken away; Fig. 5, a detail on line *z z* of Fig. 4, showing the method of pivoting the systems to the frame.

Like letters and figures of reference indicate like parts throughout the drawings.

The essential features of this machine are two or more inclined casings pivoted and arranged in a suitable frame, having assorting devices arranged within the casings and provided with means of operating the assorting devices, driven by power applied in any suitable manner.

In the drawings, A represents the frame; A' A", side boards of the upper and lower casings, respectively. Each casing and its mechanism constitute a separate assorting system, and each system is adapted to assorting a particular size of fruit; and in the device shown and illustrated the systems are arranged one above the other and operate in conjunction, as hereinafter fully explained. Each system is pivoted to the frame A upon the shaft which operates the assorting devices, respectively, said shafts being lettered B B', which shafts are journaled in boxes 5, which are secured to frame A by bolts. Each

box 5 has an inwardly-projecting sleeve 6, Fig. 5, upon which the side boards are pivoted for vertically adjusting the opposite end and regulating the vertical adjustment of the various casings. The upper system is connected to its pivot B by a bracket, secured to the ends of the side boards, Fig. 4, while the lower system is provided with a box secured to the end of the side board A", corresponding to box 5, (without its sleeve 6,) which is not shown in the drawings, being a common device for this purpose and arranged behind the box 5 of the shaft B', as shown in Fig. 4. This adjustment is provided for by the slot R in the side boards A' A", in which slot is placed the binding-bolt Q, secured in the frame A. The two shafts B B' are provided with pulleys D D', connected by a crossed belt C. Each casing is provided with a bottom board, upon which rests a T-shaped bridge G, arranged in the middle and extending from end to end of the bottom board. At the lower end of each casing are arranged large pulleys E' E", and at the upper end of each casing are arranged small pulleys E E E E. The pulleys E on the shafts B and B' are driving-pulleys. The others are idle. Each system is provided with a series of three of said pulleys E, and each series is provided with a belt F, arranged to travel along the bridge G, for conducting the fruit along the casing. These two systems of pulleys and belts are driven by foot power applied to a treadle T, pivoted to the frame and connected to the crank balance wheel W by rod U. Upon the inside of the side boards A' A", respectively, are arranged the rollers 2, provided with a longitudinal flange or rib 4. Said rolls are journaled in horizontally-adjustable hangers 1 1, secured to the end of the side boards, and are rotated from the driving-shafts by suitable pulleys and belts. (See 7 V in Fig. 2 for illustration of method of rotating the upper set.) The lower set of rollers is rotated by similar devices applied at the upper end of the lower casing and partially shown in Fig. 1. An inclined shelf 3 is arranged above the rollers to keep the fruit from lodging between the side of the casing and the rollers.

The fruit to be assorted is placed in a hopper K, having at its upper end a tight bottom

N' and at its lower end a grated bottom M, and underneath is placed an apron N to receive dirt and leaves which pass through the grates. Said hopper is provided with an extensible leg L and is pivoted to a bracket O, arranged and secured to the side of side boards A, and is adapted to fold over and rest on the upper casing for compactness in moving. P is an apron or screen which hangs across the upper end of the upper casing, of flexible material, and spreads the fruit somewhat upon its entering upon the incline. Power being applied to the treadle, the belt F moves longitudinally down the casing and is prevented from sagging by bridge G. Rolls 2 revolve in the direction indicated by the arrows in Fig. 3. The fruit, after leaving the hopper K, is carried downward by the belt F and stirred by rollers 2. The distance between the periphery of the rollers 2 and the sides of bridge G determines the size of fruit that is to constitute the different grades. Fruit too large to pass between the rolls and bridge is carried to the lower end of the upper casing, and, falling upon the bottom H<sup>2</sup> of the spout, is conducted into the basket I', which rests upon the table J. The spouts are provided with doors S' S to keep the fruit from escaping from the machines while the baskets are being changed. The smaller fruit falls through between rollers 2 and bridge G, and is conducted by bottom board H' to the upper end of the casing beneath, having a like set of rolls, belt, and bridge and side boards A'', and fruit too large to pass through between rolls and bridge passes through the box and is conducted by spout, having bottom board H<sup>5</sup>, to basket I<sup>2</sup>, which rests upon the floor, while the smaller fruit, after passing through between the rolls and bridge, is conducted by centrally-inclined bottom boards H<sup>3</sup> and H<sup>4</sup> into a spout H<sup>6</sup>, and delivered into a basket I<sup>3</sup> at the side of the machine.

One or more casings or systems may be pivoted in the same frame, adapted to assort into two or more grades; but I prefer two casings

or boxes adapted to assort into three grades, as described.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In assorting mechanism, a box or casing provided with an inclined bottom pivoted in a suitable casing, a bridge secured to said bottom, a roll journaled to said box arranged parallel to said bridge, and a belt for rotating said roll, substantially as set forth.

2. In assorting mechanism, in combination with a box or casing having an inclined bottom and pivoted in a suitable casing, a bridge arranged along said bottom near the middle, rolls arranged upon each side of and parallel to said bridge, and belts and shafting for rotating said rolls, substantially as set forth.

3. The assorting-rollers 2, provided with ribs or flanges 4, in combination with the bridge G and belt F, arranged substantially as set forth.

4. An assorting mechanism consisting of a box having an inclined bottom and pivoted to adjust in a suitable frame, a bridge G, arranged and secured to the bottom of said box, a belt F, arranged to travel along said bridge, and an assorting-roll, as 2, having a rib 4 and a shaft, pulley, and belt for rotating said roll, substantially as set forth.

5. An assorting mechanism consisting of a series of casings, arranged one above the other, pivoted in a suitable frame, each casing having an inclined bottom, a bridge G, and a belt F, arranged to travel along said bridge, pulleys for operating said belt, rolls arranged upon each side of the bridge journaled to the casing, belts for rotating said rolls, and an inclined shelf, as 3, secured above the rolls, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY H. HUTCHINS.

Witnesses:

DENNIS L. ROGERS,

LUTHER V. MOULTON.



**Defendant's Exhibit "D"—Letters Patent to H. B. Stevens for Apparatus for Sizing Oranges and Other Fruit.**

[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Defts. Exhibit No. "D." Filed July 12, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.



(Model.)

2 Sheets—Sheet 1

H. B. STEVENS.

APPARATUS FOR SIZING ORANGES AND OTHER FRUIT.

No. 247,428.

Patented Sept. 20, 1881.

Fig. 1

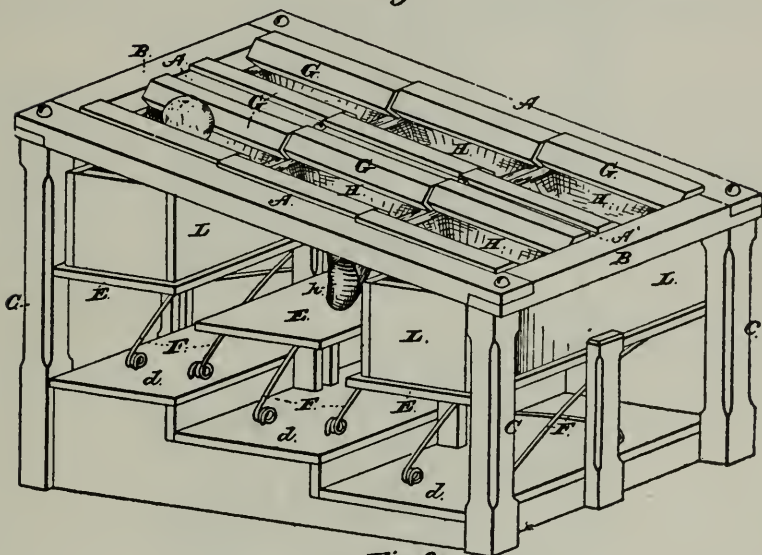
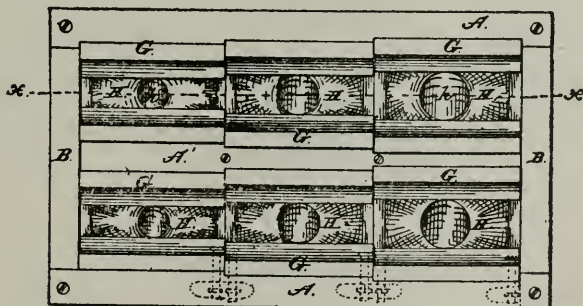


Fig. 2.



Witnesses.

Jas. E. Hutchinson  
Frank P. Peindle

Inventor

H. B. Stevens, by  
Geo. S. Peindle, his Att'y

(Model.)

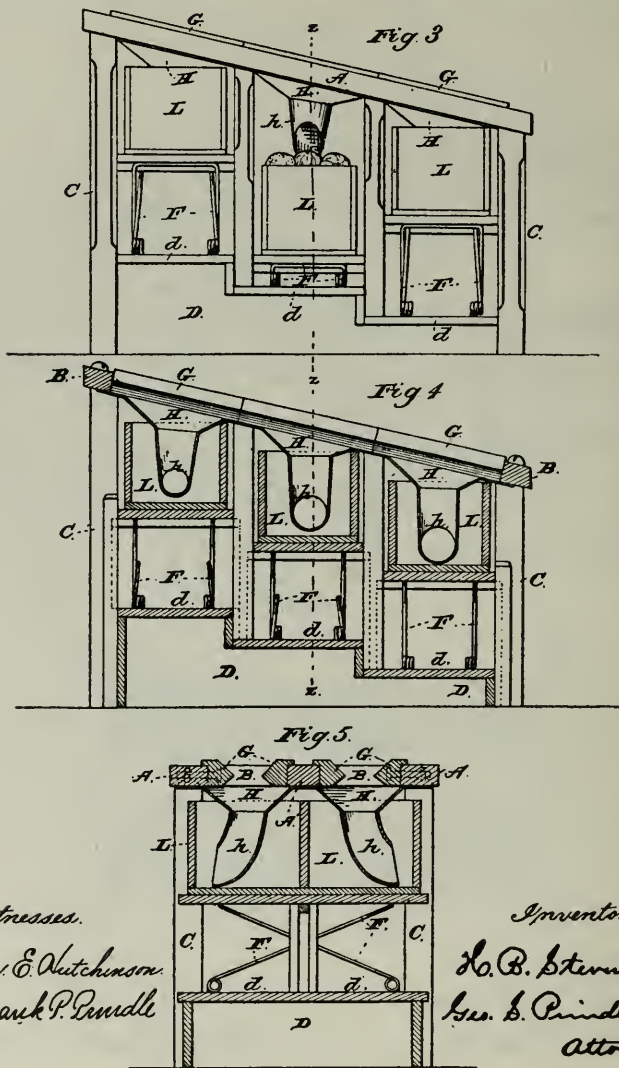
2 Sheets—Sheet 2.

H. B. STEVENS.

APPARATUS FOR SIZING ORANGES AND OTHER FRUIT.

No. 247,428.

Patented Sept. 20, 1881.



Witnesses.

Jas. E. Hutchinson.  
Frank P. Penndle

Inventor.

H. B. Stevens, by  
Geo. B. Prindle, his  
Attorney

## UNITED STATES PATENT OFFICE.

HOWARD B. STEVENS, OF CITRA, FLORIDA.

## APPARATUS FOR SIZING ORANGES AND OTHER FRUIT.

SPECIFICATION forming part of Letters Patent No. 247,428, dated September 20, 1881.

Application filed August 12, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, HOWARD B. STEVENS, of Citra, in the county of Marion, and in the State of Florida, have invented certain new and useful Improvements in Apparatus for Sizing Oranges and other Fruit; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my apparatus as arranged for use. Fig. 2 is a plan view of the upper side of the same. Fig. 3 is a side elevation of said apparatus. Fig. 4 is a vertical section upon line *x x* of Fig. 2, and Fig. 5 is a like view upon line *z z* of Figs. 3 and 4.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to facilitate the sizing of oranges; and to this end it consists, principally, in an apparatus for sizing fruit having an inclined open-bottom chute, provided with sectional adjustable sides, whereby several widths of opening may be produced through which the fruit may drop while rolling down said chute, substantially as and for the purpose hereinafter specified.

It consists, further, in combining with apparatus for sizing fruit a vertically-movable platform for sustaining a fruit-box, supported by or upon springs, and adapted to automatically drop downward as said box is filled, substantially as and for the purpose hereinafter shown.

It consists, further, in combining with the open bottom of the inclined chute flexible funnels and tubes for conveying fruit to the receiving-boxes, substantially as and for the purpose hereinafter set forth.

It consists, finally, in the apparatus described, in which the inclined open-bottomed chute, having several widths of opening, the flexible funnels and tubes, and in the vertically-movable spring-supported platforms are combined to operate substantially as and for the purpose hereinafter specified.

B and B, the whole having a general rectangular form.

The frame described rests upon and is supported by four posts, C and C, which are placed beneath its corners and have such relative length as to give to said frame a longitudinal inclination sufficient to cause fruit placed upon one end to roll freely toward the opposite lower end.

Placed between and connecting the lower ends of the posts C and C is a base, D, which fills the space horizontally and has its upper side formed by a series of steps, *d*, that correspond in width to the width of an ordinary fruit-box, and have such relative height as to cause the general inclination of the upper side of said base to correspond to the inclination of the top frame.

Above each step *d* of the base D is a board, E, which corresponds in size and shape to the upper surface of said step, and is supported by or upon springs F that are secured to and extend upward from the latter, the arrangement being such as to cause said board or platform to be held at the upper limit of its motion, except when sufficient weight is placed upon its upper side to overcome and depress said springs, when said platform will sink downward.

The space between the center rail, A', and each outer rail, A, is wider than the diameter of the largest orange to be sized, and upon the inner and upper face of each rail is secured a bar, G, which is made adjustable toward and from the opposite bar G, so as to enable the space between their adjacent faces to be lessened or increased at will. Each bar G is beveled downward and inward, so as, in connection with the opposite bar G, to form a trough or chute having inclined sides and an open bottom, and said bars are divided into independent sections which correspond in length and position to the width and location of the platforms E. The space below each section of the adjustable bars G is inclosed by means of a funnel, H, composed of cloth or other flexible material, from which funnel a tube, *h*, of the same material extends downward to or near the platform E.

The apparatus thus constructed is used in connection with another similar apparatus, the

same being arranged with their highest ends adjacent and separated by a table, upon which is placed a box of fruit for sizing. An operative stands at each end of said table, and, taking an orange in his hand, determines its quality and places it within the chute at his right or left hand, one of said apparatus being for the highest grade and the other for the second grade. Upon each platform E is placed a fruit-box, L, which is divided by a transverse partition into two compartments, each of which is directly below one of the tubes *h* and in position to receive oranges passing downward through the same. The spaces between the adjustable bars G increase in width from the upper end of the chute to its lower end, and when an orange is placed within said upper end and permitted to roll downward, it will continue its course until it reaches a point where it can pass between said bars and fall into the fruit-box below. Should said orange be of the smallest size it will pass immediately into the first box, but if of a larger size then it will pass downward until it encounters a space sufficient to permit it to drop into a box. The flexible tubes cause the fruit to be conveyed safely into the boxes and prevent displacement or injury, while, by means of the spring-supports of the platforms, each box will drop downward as filled, so as to prevent the clogging of said tubes.

By means of this apparatus two persons will perform more and better work than could be done by twenty persons operating with the usual appliances.

Having thus fully set forth the nature and merits of my invention, what I claim as new is

1. An apparatus for sizing fruit having an inclined open-bottom chute provided with sectional adjustable sides, whereby several widths of opening may be produced, through which the fruit may drop while rolling down said chute, substantially as and for the purpose specified.

2. In combination with apparatus for sizing fruit, a vertically-movable platform for sustaining a fruit-box, supported by or upon springs, and adapted to automatically drop downward as said box is filled, substantially as and for the purpose shown.

3. In combination with the open bottom of the inclined chute, flexible funnels and tubes for conveying fruit to the receiving-boxes, substantially as and for the purpose set forth.

4. The apparatus described, in which the inclined open-bottomed chute having several widths of opening, the flexible funnels and tubes, and the vertically-movable spring-supported platforms are combined to operate substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of August, 1881.

HOWARD B. STEVENS.

Witnesses:

WM. LUTZENBERGER,  
A. E. LEITCH.

**Defendant's Exhibit "E"—Letters Patent to J. A. Jones for Machine for Assorting or Sizing Fruit.**

[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-4, N. D. Defts. Exhibit No. "E." Filed July 12, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.



(No Model.)

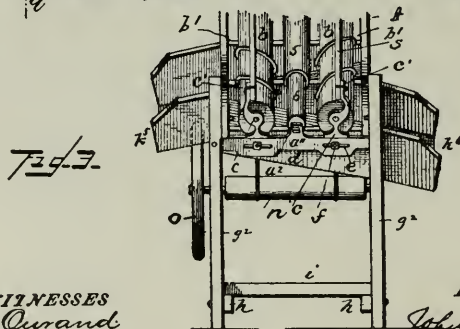
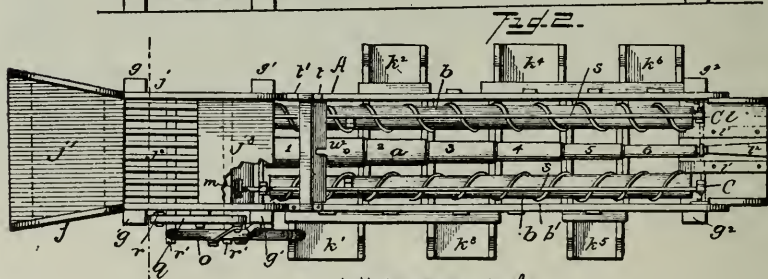
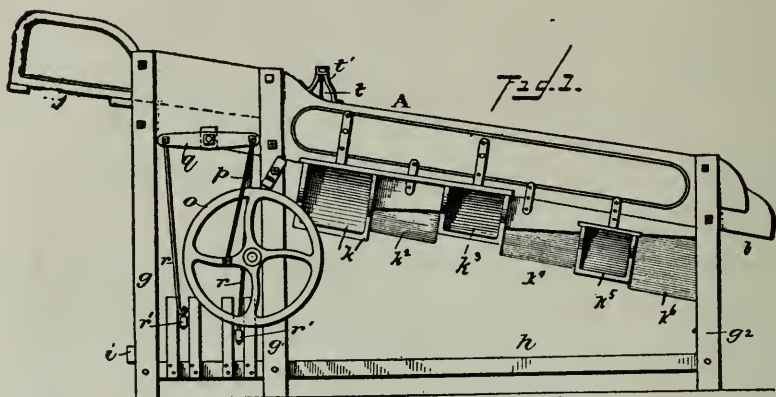
3 Sheets—Sheet 1.

J. A. JONES.

MACHINE FOR ASSORTING OR SIZING FRUIT.

No. 430,031.

Patented June 10, 1890.



WITNESSES  
*F. L. Curand*  
*E. A. Binns*

INVENTOR  
*John A. Jones*  
 by *W. H. Linnell*  
 his Attorney

(No Model.)

3 Sheets—Sheet 2.

J. A. JONES.

MACHINE FOR ASSORTING OR SIZING FRUIT.

No. 430,031.

Patented June 10, 1890.

Fig. 4.

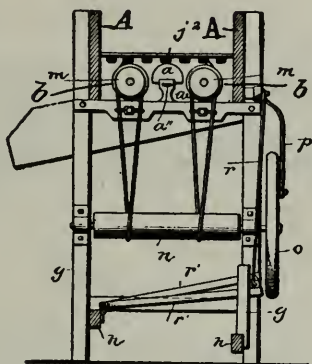


Fig. 5.

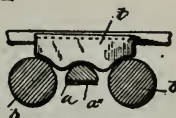


Fig. 6.

Fig. 6^v



Fig. 8.

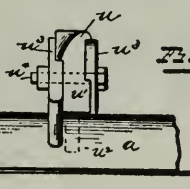
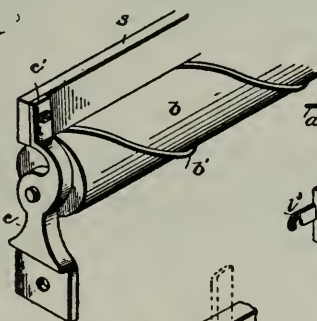


Fig. 7.

Fig. 9.

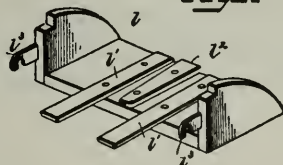


Fig. 10.

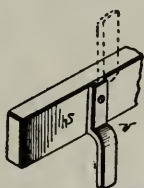
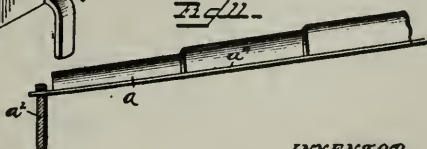


Fig. 11.



WITNESSES

F. L. Curand  
C. A. Finckel

INVENTOR

John A. Jones  
by W. H. Finckel  
his Attorney.

(No Model.)

3 Sheets—Sheet 3.

J. A. JONES.

MACHINE FOR ASSORTING OR SIZING FRUIT.

No. 430,031.

Patented June 10, 1890.

Fig 12.

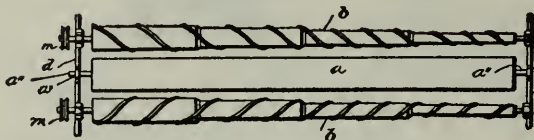


Fig 13.



Fig 14.

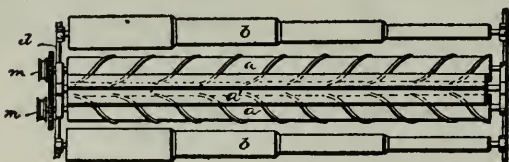


Fig 15.



Fig 16.

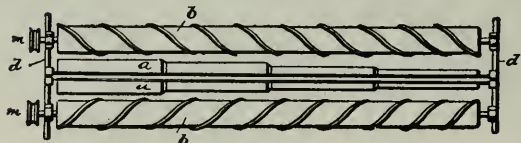


Fig 17.

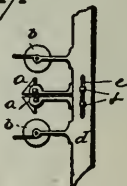
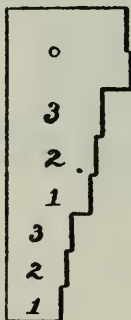


Fig 18.

WITNESSES  
*F. L. Curand*  
*E. A. Hincel*



INVENTOR  
*John A. Jones*  
 by *W. H. G. Finckel*  
 his Attorney.

## UNITED STATES PATENT OFFICE.

JOHN A. JONES, OF YORK, PENNSYLVANIA.

MACHINE FOR ASSORTING OR SIZING FRUIT.

SPECIFICATION forming part of Letters Patent No. 430,031, dated June 10, 1890.

Application filed February 16, 1889. Serial No. 300,137. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. JONES, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, have invented a certain new and useful Improvement in Machines for Assorting or Sizing fruit, of which the following is a full, clear, and exact description.

This invention relates to machinery for separating fruits and vegetables into sizes or grades in accordance with commercial usage or the packer's requirements.

Inasmuch as the invention is in the nature of an improvement upon previous machines having a like general object in view, I will first describe it, and then particularly point out and claim the part or parts constituting my invention.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a side elevation; Fig. 2, a top view; Fig. 3, a delivery end elevation, the feed end being broken away. Fig. 4 is a feed end elevation. Fig. 5 is a section showing the restraining-apron. Fig. 6 is an enlarged front elevation of the lemon-turner. Fig. 6a is a plan view; and Fig. 7 a similar side elevation, of the same. Fig. 8 is an enlarged perspective view of a side piece in part, its bearing or box, and restraining-board. Fig. 9 is a perspective view of the end delivery spout; Fig. 10, a perspective view of the auxiliary lemon-turner in working position on the restraining-board. Fig. 11 is a side view of the center piece. Fig. 12 is a top view, and Fig. 13 an end view, of another arrangement of parts; Figs. 14 and 15, similar views of still another arrangement, and Figs. 16 and 17 similar views of still another arrangement. Fig. 18 shows in obverse and reverse a gage used in setting the machine.

The fundamental parts of my machine are a graduated member of one or more parts, stationary or movable in operation, and a straight-edge member of contrary operation relatively to the other member, and one or the other of these members adjustable laterally with relation to the other to vary the distances between them. One example will suffice to illustrate the meaning of this state-

ment of fundamental construction, although I have shown and will describe several.

A center piece *a* has a series of sections 1 to 6, (more or less,) of different cross-sectional area, decreasing in size from the feed to the delivery end of the machine. This center piece is fixed or stationary, and forms one member of the machine, in accordance with the foregoing statement. Rollers *b* are arranged on each side of the center piece, with their surfaces parallel to the central longitudinal plane of the center piece, and said rollers are truly cylindrical; and inasmuch as the parts *b* may be stationary or rotary and of various shapes, as will presently appear, I designate them by the generic term "side pieces," and they constitute the second member of the machine, conformably with the foregoing statement. One or the other of these members *a b* is adjustable laterally and bodily toward and from the other. In the machine shown in Figs. 1 to 4 the cylinders *b* are shown as adjustable, having to this end bearings at each end in boxes *c c*, which are supported upon cross-bars *d*, the bearings and cross-bars being connected by means of slots *e* and bolts *f*. Thus not only are the spaces between the center piece and the cylinders graded and varied by the gradations of the center piece, but they may be further varied by moving the cylinders toward or from the center piece. The relations of these two members may be varied. In Fig. 12 the center piece is a cylinder, while the side pieces are rollers having sections of decreasing diameter and made adjustable, as in the first case. In Fig. 14 the center piece is composed of two cylindrical rollers geared together, so as to revolve toward each other, and surmounted by a triangular strip *a'* to cover the space between the said rollers. The side pieces are graduated, as in Fig. 12, are non-rotative, and are adjustable. In Fig. 16 the side pieces are cylindrical, rotary, and non-adjustable, while the center piece is composed of two quarter-sections graduated and each supported in its own bearings and made adjustable relatively to the side pieces. Moreover, it is obvious that in Fig. 14 the center pieces might be graduated and the side pieces be truly cylindrical. So, also, in Fig. 16 the center piece might be



straight and the side pieces graduated. The center pieces in Fig. 16 might be quarters of a cylinder or a square or other shape, or they might be cylinders, straight or graduated, rotary or stationary, and adjustable or non-adjustable; but in the last case the side pieces should be adjustable.

I have stated thus the principle of my invention, and I will now describe the details as illustrated in the drawings.

A suitable frame is constructed of uprights *g g' g<sup>2</sup>*, stringers *h*, cross-pieces *i*, and supports for the cross-bars *d*, on which the center piece and side pieces are arranged. A trough 15 *A* is supported in an inclined position upon this frame, and this trough contains in its delivery portion the center piece and side pieces. The upper portion of the trough is provided with a hopper *j*, having a flexible bottom *j'*, a 20 screen *j<sup>2</sup>*, and a feed-table *j<sup>3</sup>*, substantially as and for the respective purposes mentioned in my Patent, No. 150,961. Delivery-spouts *k' k<sup>2</sup> k<sup>3</sup> k<sup>4</sup> k<sup>5</sup> k<sup>6</sup>* depend at inclines in alternation from opposite sides of the trough and correspond in number with the number of sections 25 into which the center piece (or side pieces) may be divided. The end of the trough is provided with a spout *l*.

It hardly need be said that the center piece 30 and side pieces serve to separate the fruit into as many sizes as there are sections and spouts and that the smallest fruit escapes at section 1 and spout *k'*, while the largest goes over the ends of these center and side pieces 35 out at the spout *l*.

The spouts *k'* to *k<sup>6</sup>* will have bottoms of flexible or soft material, (preferably canvas or rubber,) which will preserve the descending fruit or vegetables from injurious impact.

40 The rotary member or members may be provided with pulleys *m*, banded to a drum *n*. This drum may have a fly-wheel *o*, which is connected by a pitman *p* with a rock-lever *q*, supported on the frame or trough, and this 45 rock-lever is connected by rods *r r* with treadles *r' r'*, whereby the drum may be rotated, and thus transmit motion to the side pieces or center pieces, whichever may be rotary.

50 Above the side pieces are arranged the boards *s*, which are secured to brackets *c'*, rising from the boxes *c*. These boards restrain the fruit, &c., from escaping over the sides.

An apron *t* is suspended over the members 55 *a* and *b*, just next the feed-tables *j<sup>3</sup>*, to restrain the too free movement of the incoming fruit and let it down gently to the center piece and side pieces, and also to give the operator time to gather and throw out specked stuff. This 60 apron may be made of rubber or other flexible material, and is preferably suspended from a bracket *t'*, mounted upon the trough.

The spout *l* (see details, Fig. 9) is made with the tongues *l' l'* to project under the spaces 65 at the ends of the side pieces, so as to prevent the fruit from dropping on and being injured by the edge of the spout and against

the cross-piece as it leaves the side pieces. A ridge *l<sup>2</sup>* may also be employed in the spout to keep separate the two outgoing streams of fruit. The spout may have hooks *l<sup>3</sup>* to engage the trough.

The rotary member is provided with a spiral strip of rubber or other flexible substance or material *b'* to assist gravity in the 7 descending motion of the fruit.

The center piece is preferably made of wood, and in order to keep it straight, prevent it from warping, and at the same time afford supports for it, I affix to it longitudinally a 8 strip, preferably of flat steel, *a''*, which projects beyond the ends of the center piece and engages lugs *a<sup>2</sup>* rising from or affixed to the cross-pieces *d d*.

In assorting lemons those of elongated or 8 egg shape are apt to go into the machine crosswise of the center piece and side pieces, and in order to turn them lengthwise I provide the device *u*, Figs. 6 and 7, which consists of a post *u'*, having a foot which is set 9 in a socket *u<sup>2</sup>* in the center piece. The post is grooved obliquely in opposite directions on opposite sides, and in these grooves are arranged fingers *u<sup>3</sup> u<sup>3</sup>*, which are slotted longitudinally and held together and to the post 9 by a bolt *u<sup>4</sup>*. The fingers are made adjustable upon the post so as to project more or less beyond the center piece, in order to suit the size of lemons being acted upon. In use this lemon-turner is set in the socket in the center 1 piece, so that its figures project over the sides of the center piece and into the spaces between it and the side pieces and serve to turn the lemons lengthwise to be fed to the proper 1 egress. When oranges or other round objects are being assorted, this lemon-turner is arranged in the center piece with its fingers extending lengthwise instead of crosswise of the center piece and prevents the objects from riding over one another and directs them into 1 the spaces between the center piece and side pieces, so as to be properly fed along.

*v* is the auxiliary lemon-feeder; and it consists of a bayonet-shaped device fastened to the restraining-boards, and when not in use 1 it is turned up, as indicated in dotted lines in Fig. 10. The action of this form of lemon-turner is the same as that just described.

In order to properly adjust the side pieces or center pieces, I employ a gage. (Shown in 1 Fig. 18. This gage consists of a piece of board or other rigid material having a series of steps made in conformity to the sizes into which the fruit is desired to be assorted. For the sake of clearness I will describe my gage 1 as used in assorting oranges. Oranges are assorted or graded according to the number that may be packed in a box, and are designated as follows, beginning with the largest and going down to the smallest that are put upon the market, viz: 96's, 112's, 128's, 146's, 176's, 200's, 226's, 250's, and 300's; but for practical purposes with my machine consideration may be given only to the 96's, 112's 128's,



250's, and 300's. Those oranges that would escape at section 1 and spout *k'* would be the smallest, while the largest would run out at the end of section 6 and spout *l*, and sometimes the 96's and 112's are mixed.

The adjustable members are adjusted alike at both ends, and it is the object of this gage to insure such adjustment. Of course if the adjustment at each end is fixed, then a corresponding increase or diminution of width of spaces follows throughout the machine. The upper or feed ends of the movable members are set by the larger numbers on the gage, while the lower ends are set by the smaller numbers on the gage. This setting of the movable members is effected by introducing the gage edgewise between the movable members and then moving up the bearings of said movable members until they come in contact with the gage and then tightening the bolts used to secure such bearings or boxes firmly to the cross-bars *d*. For example, if 112's are to be discharged at spout *k*<sup>6</sup>, then the gage will be introduced at No. 112, between the movable members at section 6 of the center piece. The smaller sizes would then be determined by gaging the upper ends of the movable members by sections marked 250 and 300 on the gage. Sections marked 1 2 3 and 1 2 3 on the gage are used in setting the rollers for other fruit smaller than oranges, the narrow 1 2 3 for the upper ends and wide 1 2 3 at the lower ends of rollers.

My machine may be used for assorting round varieties or tomatoes, and also for assorting apricots, olives, and other fruits and vegetables having an approximately regular outline; but it is especially effective in assorting oranges according to already well-known standards. For assorting oranges it is immaterial whether the center piece or side pieces be adjustable or not, and I inculde in my invention as claimed a machine so constructed.

The strip *b'* may be omitted, and in such case the center piece and side pieces would have rather more fall than is indicated in the drawings.

In Fig. 14 the coupled rollers might be graduated and the side rollers straight.

It is to be observed that the several sections of the graduated member have parallel instead of tapering edges, and therefore said sections, in conjunction with the straight-edge members, form rectangular egress spaces, whereby there is no liability of the objects being assorted being crowded and wedged into a space too small for them. In practice it is found that a tapering edge exit tends to attract objects that are too large to freely pass, and that such objects being forced through these exits are injured or bruised, and thus their prime condition is destroyed and their market value impaired. With my machine, having rectangular openings or exits, this injury is impossible.

Special advantages growing out of placing

the two members in such relation to each other that their working faces or edges would be in precisely the same horizontal plane are that the curved faces of these members flare upwardly and away from the plane from which the fruit escapes or in which it is discharged from the machine, thus enabling gravity alone or assisted by the rubber spiral, when that is used, to effect the discharge of the fruit without other means, such as a movable member. Such second movable member is dispensed with and the motive power required to run the machine to this extent is diminished and the cost of construction correspondingly decreased. Moreover, if the working faces or edges be in the same plane, and one or both of the members be cylindrical, fruit that is the least particle too large to escape at a given exit cannot possibly lodge in such exit, but must go on to its own exit; whereas, if the said working-faces were disposed one below the other there would be below the horizontal or horizontal axial plane of the roller a space greater than the exit, into which the fruit would tend to lodge and from which it could be dislodged only by force and at the risk of injury to its skin and substance, and hence in all other machines to me known, the working members have been made to revolve in opposite directions, or one has a rotary motion on its longitudinal axis and the other a longitudinal bodily movement at right angles to the direction of rotation of the other member, so as to force-feed the fruit and, as stated, at the imminent risk of injuring delicate fruit.

What I claim is—

1. A machine for assorting oranges and the like, comprising a graduated member composed of a number of sections and each section of uniform width throughout its length, and a straight-edge member, one of these members being rotary and the other stationary and one of them being adjustable laterally with relation to the other to vary the distances between them, and the two members forming a series of rectangular exits of different sizes, substantially as set forth.

2. A machine for assorting oranges and the like, comprising a graduated member composed of a number of sections and each section of uniform width throughout its length, and a straight-edge member arranged in the same horizontal plane, the two members forming a series of rectangular exits of different sizes, and one of said members having a rotary motion and the other being stationary and having boxes or bearings suitably supported and adjustable to permit the movement of that member away from or toward the other member to vary the space or spaces between the members, substantially as described.

3. In a machine for assorting oranges and other fruits and vegetables, a center piece provided with a number of sections of different width and each section of uniform width

throughout its length, cylindrical side pieces arranged substantially parallel with the central plane of the center piece and in the same horizontal plane and provided with  
 5 boxes and supports for said boxes, and means, such as slots and bolts, for fixing said boxes at different points on the supports, the said center piece and side pieces forming a series of rectangular exits of different sizes, substantially as and for the purpose described.

4. In a machine for assorting oranges, &c., a fixed center piece provided with a series of sections of different width and each of uniform width throughout its length, combined  
 15 with adjustable side pieces having straight edges and arranged upon opposite sides of the center piece and forming with the center piece a series of rectangular exits of different sizes, a trough in which the center piece  
 20 and side pieces are arranged, spouts depending at an incline from the bottom of the trough corresponding in number with the number of sections in the center piece and arranged in alternation on opposite sides of the trough,  
 25 and an end spout, substantially as and for the purpose described.

5. In a machine for assorting oranges, &c., a fixed center piece composed of a series of sections of different width and each section  
 30 of uniform width throughout, substantially as shown, combined with side pieces having straight edges, adjustable boxes for said side pieces, and means to rotate the side pieces, substantially as described.

35 6. In a machine for assorting oranges, &c., the center piece provided with a graduated active face and a flat bottom, and a metal strip secured to such flat bottom and extending beyond both ends, combined with supports  
 40 to receive the ends of the metal strips, substantially as described.

7. The within-described lemon-turner, the same consisting of a post and fingers crossed obliquely and adjustably secured to the post  
 45 and adapted to be applied to a stationary member of a fruit-assorting machine and to co-operate with feeding mechanism in such machine to insure the passage of lemons in proper position through such machine, substantially as described.

8. In a machine for assorting fruit, the com-

bination of the center piece and the side pieces forming feeding and discharging means, restraining-boards arranged above said side pieces to prevent the escape of objects being acted upon, and fingers arranged, respectively, on the center piece and the restraining-boards to turn lemons from a crosswise into a longitudinal direction, substantially as described.

9. The bayonet-shaped piece *v*, adapted to be applied in a fruit-assorting machine having a stationary support therefor, and also having feeding devices to turn lemons and such like oblong fruit into proper position to be discharged, substantially as described.

10. In a machine for assorting oranges, &c., the combination, with the trough and assorting mechanism therein, of a detachable end spout *l*, constructed with projecting pieces *l'* *l'*, substantially as and for the purpose described.

11. In a machine for assorting oranges, &c., a fixed center piece provided with a series of sections of different width and each of uniform width throughout its length, combined with side pieces having straight edges and arranged upon opposite sides of the center piece and forming with the center piece a series of rectangular exits of different sizes, a  
 trough in which the center piece and side pieces are arranged, spouts depending at an incline from the bottom of the trough corresponding in number with the number of sections in the center piece and arranged in alternation on opposite sides of the trough, and  
 an end spout, substantially as and for the purpose described.

12. A machine for assorting oranges, comprising a graduated member and a straight-  
 edge member, one or the other of such members being rotary and the other stationary and all arranged in the same horizontal plane and forming a series of exits of different width and rectangular in outline, substantially as described.

In testimony whereof I have hereunto set my hand this 14th day of February, A. D. 1889.

JOHN A. JONES.

Witnesses:

J. JESSOP,

WALTER B. WHITE.

**Defendant's Exhibit "F"—Letters Patent to J. T.  
Ish for Fruit Grading Machine.**

[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "F." Filed  
July 12, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

(No Model.)

2 Sheets—Sheet 1

J. T. ISH  
FRUIT GRADING MACHINE.

No. 458,422.

Patented Aug. 25, 1891.

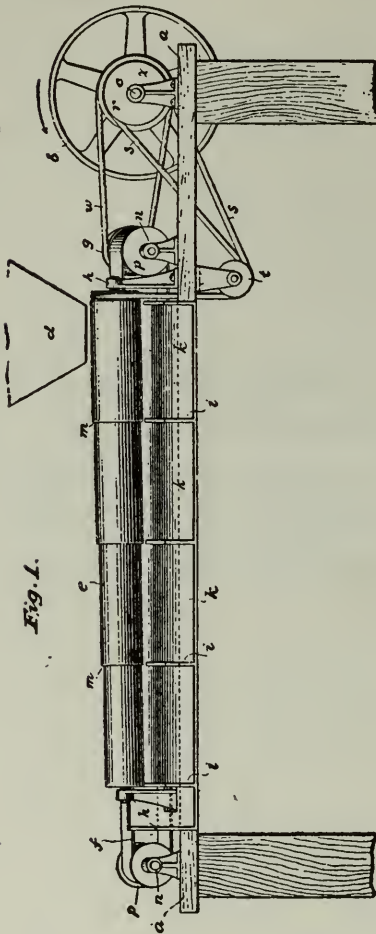


Fig. 1.

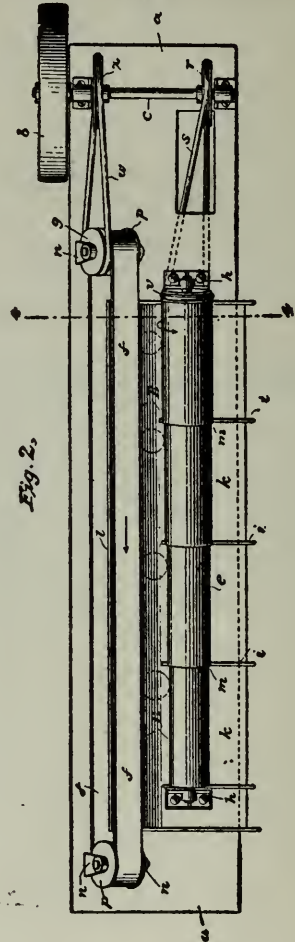


Fig. 2.

Witnesses

Geo. W. Breech  
Edward Thorpe.

Inventor

James T. Ish.  
By his Attorneys  
Hewitt & Fowler



(No Model.)

2 Sheets—Sheet 2.

J. T. ISH.  
FRUIT GRADING MACHINE.

No. 458,422.

Patented Aug. 25, 1891

Fig. 2.

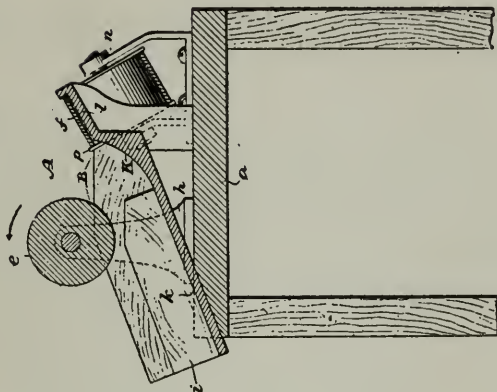
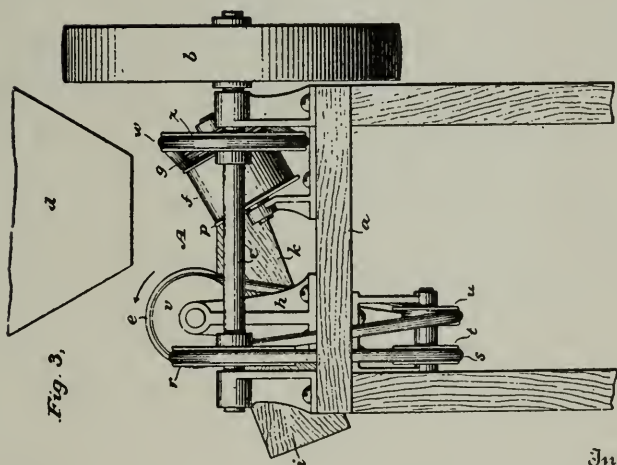


Fig. 3.



2 Witnesses

Geo W. Brock  
Edward Thorpe

Inventor

James T. Ish

By for Attorneys

Fowler & Fowler



## UNITED STATES PATENT OFFICE.

JAMES T. ISH OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO J. L. MOSHER, T. H. CHANDLER, AND J. B. ROBINSON, OF SAME PLACE.

## FRUIT-GRADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 458,422, dated August 25, 1891.

Application filed June 21, 1889. Serial No. 315,089. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. ISH, a citizen of the United States, residing at San Francisco, county of San Francisco and State of California, have invented certain new and useful Improvements in Fruit-Separators, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a machine for separating or assorting fruit or vegetables according to size; and the invention consist in the certain novel and peculiar arrangements and combinations of the various parts of the machine, all as hereinafter fully described, and then pointed out in the claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a side view of the machine embodying my invention. Fig. 2 is a top plan view of Fig. 1 with the hopper omitted. Fig. 3 is an enlarged end view of the machine. Fig. 4 is an enlarged sectional view, the section being taken on a plane indicated by line 4 4 in Fig. 2.

In the said drawings like reference-letters designate like parts throughout.

Referring to the drawings, *e* is a rotary member, consisting in a graduated cylindrical body or roller, which is mounted in suitable bearings *h h*, fixed upon the machine-frame. This roller is rotated in the direction of the adjacent arrows by means hereinafter described, and is slightly inclined to the horizontal in order to assist the passage of the fruit through the machine, and is stepped at *m m*, so that the roller is composed of cylindrical sections of different diameters, the diameters of the sections decreasing from the feed end to the delivery end thereof. The motion of the roller is obtained from the main shaft *c* by means of the belt-wheel *r*, belt *s*, pulleys *t u*, and the pulley *v* on the end of the roller, the shaft *c* being driven by the band-wheel *b*. The other member *f*, which, together with the graduated roller *e*, forms the space or grading-chute through which the fruit is passed, consists in an endless belt mounted on the flanged pulleys *p p*, which are set ob-

liquely and turn in bearings *n n*, secured upon the frame *a*. The pulley *n* near the shaft *c* is driven thereby through means of the grooved wheel *g*, belt *w*, and pulley *x*. When the roller is inclined, the belt *f* is also inclined at the same angle, thereby forming an inclined grading-chute along which the fruit may gravitate. The belt rotates in an oblique plane and in such direction as to cause its upper or working section to travel from the upper toward the lower end of the grading-chute *A*, as per the arrow shown thereon, in order to assist the movement of the fruit through the machine. The belt *f* is preferably placed so that the edge thereof adjacent the member *e* is in a plane parallel to the axis of said member, as will be readily understood from the drawings.

Instead of a flat belt a rope or any suitable preferred conveying means may be used to move the fruit along the roller *e*. The outer surface of the belt may be provided in any suitable manner with means for increasing the friction between the belt and fruit to give the latter a more positive motion. A canvas of coarse texture would answer the purpose very well, though, if preferred, catch fingers or bars may be placed on the belt. This belt acts in a delicate manner upon the fruit when combined with the roller *e*, rotating as described, and it will be seen that the fruit is not liable to be bruised or injured thereby.

To prevent the belt *f* from sagging, in order to maintain the graduated opening between the belt and the roller uniform, I provide the belt with a bed or support *l*, over which the upper or working portion of the belt travels, as will be understood from the drawings. If desired, this bed may be provided with anti-friction rollers to relieve the belt of the drag by lessening the friction between the same and the bed.

Beneath the members *e* and *f* is placed a delivery-chute *k*, which extends from one of said members downwardly and beneath the graduated space out under the other member, as will be understood from the drawings. The fruit in passing down from the graduated space passes into the chute from where it may be received in boxes or bags. This chute is provided at regular intervals with parti-

458,422

ions or divisions *i*, so that like sizes of fruit may pass into its proper division and be collected. To prevent the fruit from being bumped, and thereby bruised as it passes through the graduated space between the members into the delivery-chute, I curve or incline the latter, as at *K*, Fig. 4. This curve is preferably struck from the center of the roller *e*, so that the curve is concentric therewith, and this permits the fruit to be gradually rolled or lowered into the chute in an obvious manner, thereby preventing bruising of the same.

The operation of the machine will now be evident. The fruit is fed into the grading-chute *A*, formed by the members *e* and *f*, at the upper or right-hand end thereof by any suitable means—for instance, by the hopper *d*. The fruit then moves or is moved along between the members, and until it comes to a point where the width of the graduated space *B* corresponds to its diameter, when it passes down through the space into its proper division or chute. The dotted-in circles in the grading-way, Fig. 4, may be supposed to represent four pieces of fruit of different sizes that have reached their corresponding openings in the graduated space between the members *e* and *f*, and are about to pass down through the same into the delivery-chutes. The positive motion of the belt *f* will carry the fruit rapidly through the machine, the passage of which is also assisted by the rotary motion of the roller *e*. However, if preferred, gravity may be used to assist the movements of the fruit by inclining slightly the members *e* and *f*, as indicated in the drawings, though this inclination may not be adopted, as it is in no wise essential to the operation of my invention.

Having thus described my improvements in fruit and vegetable separators, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In a fruit-separator, a grading way or chute for the fruit to pass along and be separated or assorted, the same comprising a suitably-mounted member and a traveling belt arranged adjacent to said member, so as to form in conjunction therewith the way or chute for the fruit.

2. In a fruit-separator, a grading way or chute for the fruit to pass along and be separated or assorted, the same comprising a graduated member and an endless traveling belt arranged parallel and adjacent to the said member, so as to form in conjunction therewith the way or chute for the fruit.

3. In a fruit-separator, a grading way or chute for the fruit to pass along and be separated or assorted, the same comprising a graduated member and an endless traveling belt arranged near the said member, so as to form in conjunction therewith the way or chute,

and provided with a support or bed for holding the working portion of the belt from sagging.

4. A fruit-separator comprising a graduated rotary member and a traveling endless belt arranged parallel and adjacent thereto.

5. A fruit-separator comprising two members arranged with a graduated space therebetween for the fruit to pass through and one or more delivery-chutes arranged beneath the said space between the members and formed with an inclined or curved bottom, the incline or curve of which extends from the working edge of one of the members downwardly, whereby the fruit passing through the space may be gradually rolled into the delivery-chute and prevented from falling or dropping therein.

6. A fruit-separator comprising two spaced members having a graduated space therebetween for the fruit to pass through, one of said members being cylindrical, one or more delivery-chutes arranged beneath the said space and formed with a curved bottom, the curve of which is concentric with that of the said cylindrical member and extends from the working edge of the said other member downwardly, whereby the fruit may roll into the delivery-chute.

7. A fruit-separator having, in combination, a rotary graduated roller *e* and an endless traveling belt *f*, arranged parallel thereto, with the graduated space between them, substantially as set forth.

8. A fruit-separator having, in combination, a rotary graduated roller *e*, suitably mounted and driven from shaft *c*, and an endless belt *f*, mounted on inclined pulleys *pp* and receiving its motion from shaft *c*, substantially as set forth.

9. A fruit-separator having, in combination, a rotary graduated roller *e*, suitably mounted and driven, and an endless belt *f*, provided with a belt or support *l* for preventing the sagging of the belt, substantially as set forth.

10. A fruit-separator having, in combination, a pair of spaced members forming therebetween a graduated space for the fruit to pass through, one of said members being cylindrical, such as the roller *e*, and one or more delivery-chutes *k*, arranged beneath the said space and having the bottom thereof curved, as at *K*, and such curve extending from the working edge of the other said member downwardly, substantially as set forth.

In testimony whereof I have hereunto set my hand and affixed my seal, in the presence of two subscribing witnesses, this 31st day of May, 1889.

JAS. T. ISH. [L. S.]

Witnesses:

H. A. COBB,

JOS. F. NOUNNAN.

**Defendant's Exhibit "G"—Letters Patent to M. P.  
Richards for Vegetable or Fruit Separator.**

[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "G." Filed  
July 12, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

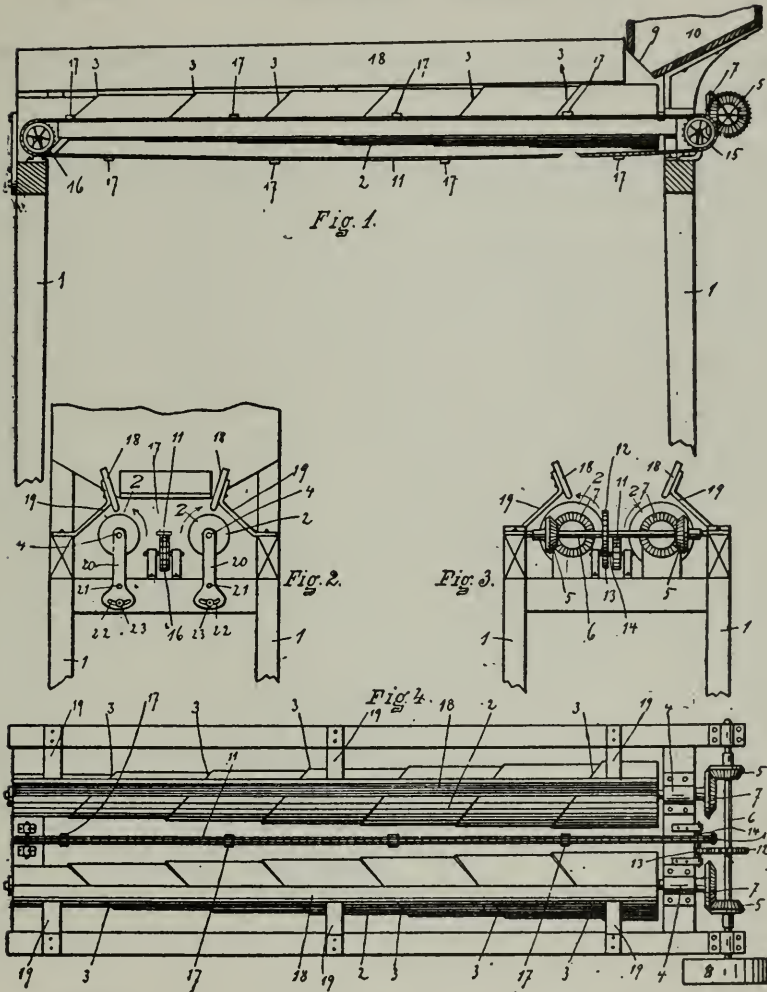
No. 654,281

Patented July 24, 1900.

M. P. RICHARDS.  
VEGETABLE OR FRUIT SEPARATOR.

(Application filed Apr. 17, 1899.)

(No Model.)



WITNESSES.

Rich. A. George.  
Charles Wilson

INVENTOR

MORRIS P. RICHARDS

By: *Ridley Love*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

MORRIS P. RICHARDS, OF UTICA, NEW YORK.

VEGETABLE OR FRUIT SEPARATOR.

**SPECIFICATION** forming part of Letters Patent No. 654,281, dated July 24, 1900.

Application filed April 17, 1899. Serial No. 713,256. (No model.)

*To all whom it may concern:*

Be it known that I, MORRIS P. RICHARDS, a citizen of the United States of America, and a resident of Utica, Oneida county, New York, have invented certain new and useful Improvements in Vegetable or Fruit Separators, of which the following is a specification.

My invention relates to a vegetable or fruit separator; and it consists in the mechanism hereinafter pointed out and claimed.

In the drawings, Figure 1 represents a vertical central section of my machine, the broken lines indicating parts removed. Fig. 2 is a left-hand view of my machine, taken at the left of Fig. 4, the broken lines indicating parts removed. Fig. 3 represents a view taken at the right of Fig. 4, the broken lines indicating parts removed. Fig. 4 represents a plan view of my machine with the feeding-hopper removed.

In the drawings similar numerals refer to corresponding parts in the several views.

Having described my invention by the figures illustrated in the drawings, I will now proceed to describe more in detail its construction and operation.

In the construction of my machine I mount it on a suitable frame, preferably with four legs, which are designated with numeral 1, of sufficient height and strength to accommodate the working of the machine and at the same time supporting the same at proper elevation upon the floor or other place where the machine is to be supported.

My machine has two graduated horizontal rolls 2 2. (Illustrated in Figs 1, 2, and 4.) Each roller has tapering screw-threaded surfaces running lengthwise of the rollers, and each succeeding space or graduated portion between the screw-threaded edges tapers from the front to the rear of the machine, as best illustrated in Fig. 4.

The rolls 2 2 are each formed with a gradually-reducing spiral surface from one end to the other thereof, and the gradually-reducing convolutions of the spiral surface form the corresponding reducing-screw or spiral shoulder or edge from the large to the small end of the roll and facing only toward the small end of the roll and offering no obstruction to the passage of fruit along said roll toward the small end thereof. Thus this spiral edge or

shoulder faces only in the direction of movement of the fruit or other articles being carried longitudinally of the rolls from the large toward the small ends thereof. The gradual diminution in diameter of each roll and the screw shoulder or edge thereof are both formed by one and the same development of surfaces. The roll is formed, as it were, by winding a sheet of the thickness of the screw-shoulder in the same manner as a paper "spill." The sheet being wound upon itself with one edge diagonal to the axis forms a cylinder gradually diminishing in diameter, the shoulders forming at once the spiral thread and the coefficient of the diminution in diameter of the roll. This reference to the paper spill is merely for the purpose of illustration of the exterior formation of each roll 2. It should be noted that by so forming the surface of each cylinder or roll 2 the screw or spiral shoulder or edge forms merely the sheer termination of the smooth cylinder-surface, there being nothing to impede the advance of the fruit as rapidly as the inclination of the rolls or other moving means will permit, as hereinbefore set forth. These rolls 2 2 are arranged longitudinally of the machine and are mounted to turn on substantially-axial lines in suitable bearings 4 4 (best illustrated in Figs. 2 and 4 of the drawings) and are made to rotate in the direction of the flight of arrows in Figs. 2 and 3 by means of beveled gears 5 5, splined or secured to shaft 6, the beveled gears meshing into corresponding beveled gears 7 7 on the trunnion which supports the front end of graduated rollers 2 2. The rollers are mounted in the frame in the same horizontal and central vertical position, as illustrated in Fig. 4, lengthwise of the frame, so that by applying power to pulley 8 on the shaft the graduated rollers are turned in the direction of the flight of arrows, as shown in Figs. 2 and 3. The vegetables or fruit is fed onto the rollers through opening 9 through hopper 10, where the rotation of the rollers takes up the fruit and carries it rearward on the rollers, allowing the vegetables of different sizes to drop between the different graduated portions of the rollers and the larger and more select portions of the fruit or vegetables being carried and dropped over the rear of the frame. For facilitating



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the movement of the fruit or vegetables I provide an endless, preferably, chain or link belt 11, running centrally and permanently between the rolls, which is driven by gear-wheel 12, Fig. 4, splined to shaft 6, which meshes into pinion-gear 13 on shaft 14, which carries sprocket-wheel 15 for driving the endless chain over sprocket-idler 16, Fig. 2. For still further facilitating the rearward movement of the vegetables or fruit I place cross-wise of the chain at suitable intervals cross-blocks or carriers 17.

For keeping the fruit or vegetables in the line of travel over the graduated rollers I provide side boards 18 18, inclining at an angle from the vertical line. These side boards are held in position by brackets 19 19, attached to the side board and secured to the frame, and as the vegetables or fruit drop from the hopper between the rolls at the front of the machine the side boards guide the fruit and vegetables backward, keeping them at all times where they can be separated by dropping between the graduated rolls as they are carried forward by the mechanism already described.

For adjusting the graduated rollers to accommodate different sizes of fruit or vegetables presented to the machine for separation I provide swinging brackets 20 20, Fig. 2, which are pivoted to the frame at 21 21, the rear ends of the rollers being journaled in the upper ends of the brackets, while the lower ends of the brackets have curved slots 22 22, through which I pass set-screws 23 23, so that by loosening the set-screws the brackets are permitted to swing on their pivotal supports and the graduated rolls are brought closer together or farther apart, as the exigencies of the case require.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a machine of the character described, the combination of a pair of cooperating approximately-parallel rolls, each roll gradually diminishing in diameter and having the spiral surface with the spiral edge or shoulder forming the sheer termination of said spiral surface, substantially as set forth, a pair of side boards supported above and near the vertical axial lines of the rolls, an endless link belt between and approximately parallel with the axes of the rolls, and mechanism for driving the movable parts, substantially as described.

2. In a separator, the combination of a pair of rotating rolls, each roll gradually diminishing in diameter and formed with a spiral surface forming the corresponding spiral edge or shoulder facing only toward the delivery end of the roll, substantially as described, a pair of side boards supported longitudinally above the rolls, an endless link belt provided with cross-blocks and running longitudinally of and between the rolls, and actuating mechanism, substantially as described.

3. In a machine for assorting fruit and like articles, a pair of rotary cylinders gradually diminishing in the direction of their length, each cylinder having the spiral smooth surface formed with the corresponding spiral edge facing only toward the small end of the cylinder, as described, mechanism for adjusting the axial center of the rolls in relation to each other, a pair of side boards above and near the axial center of the rolls, and endless belt running parallel to the axis of the rolls between the same, and mechanism for driving the movable parts, combined substantially as set forth, for the purposes stated.

4. In a machine for assorting fruit and like articles, a pair of rotating cylinders, diminishing spirally in their diameter in the direction of their length, each cylinder having the spiral surface with the corresponding spiral-edged shoulder facing only toward the small end of the cylinder, substantially as set forth, mechanism for adjusting the cylinders with reference to their axial centers, side boards or hoppers supported above and near the axial center of the rolls, an endless link belt running between the axes of the rolls, and mechanism for driving the parts, combined, substantially as set forth for the purposes stated.

5. A separating-machine, substantially as described, comprising a rotating cylinder gradually diminishing in diameter from one end to the other and formed with the spiral surface from end to end having the corresponding spiral-edged shoulder facing only toward the small end of the cylinder and offering no obstruction to the advance of fruit along the cylinder, substantially as set forth.

Signed by me at Utica, New York, this 13th day of April, 1899.

MORRIS P. RICHARDS.

Witnesses:

W. G. STONE,  
PHEBE A. TANNER.

**Defendant's Exhibit "H"—Letters Patent to H. H.  
Hutchins for Fruit and Vegetable Assorter.**

[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "H." Filed  
July 12, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

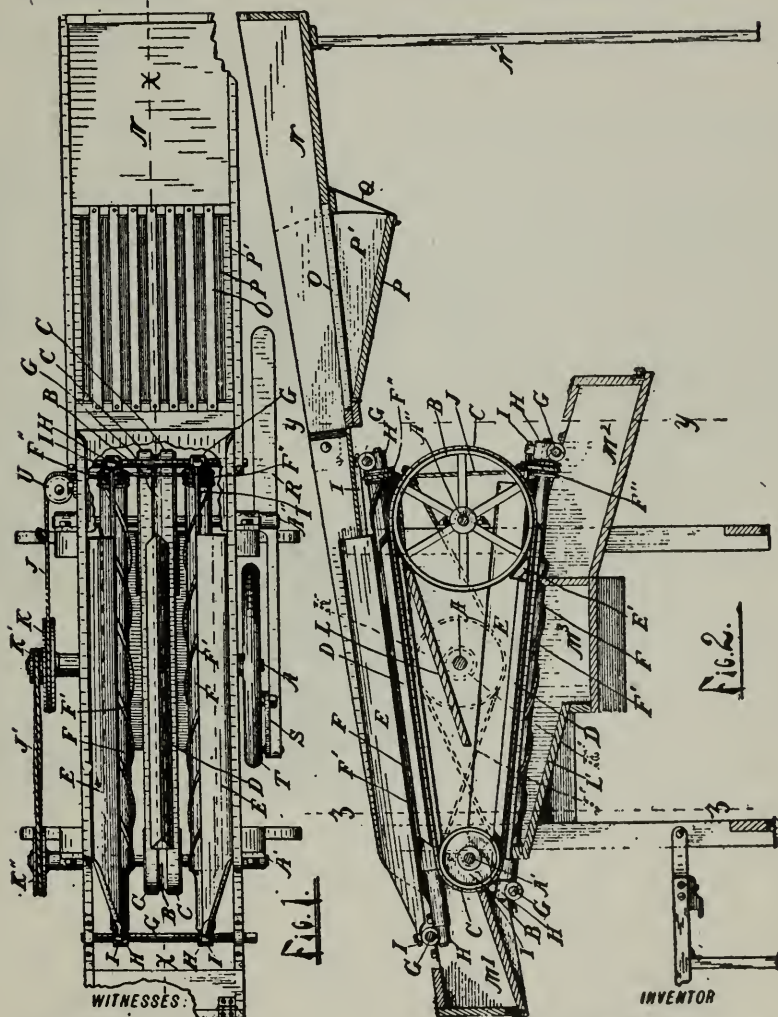
(No Model.)

2 Sheets—Sheet 1.

H. H. HUTCHINS.  
FRUIT AND VEGETABLE ASSORTER.

No. 465,856.

Patented Dec. 29, 1891.



WITNESSES:

*Claude R. Buchanan*  
*Lois Moulton*

INVENTOR  
Henry H. Hutchins

BY  
Luther V. Moulton  
ATTORNEY.

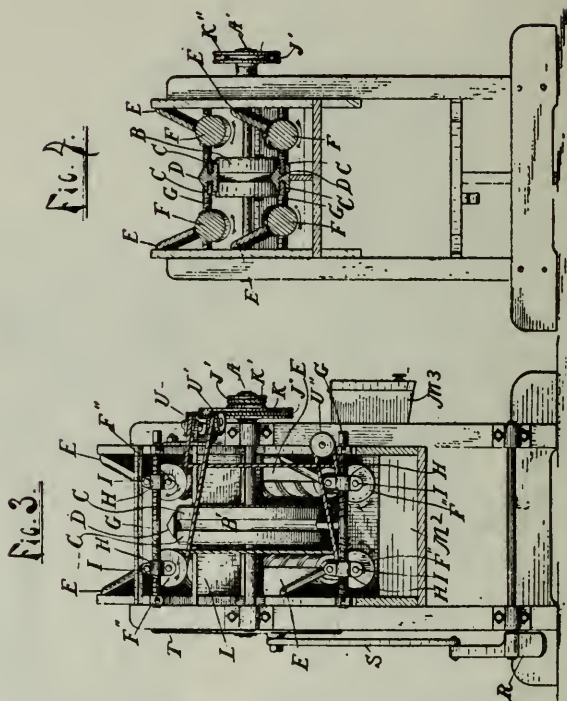
(No Model.)

2 Sheets—Sheet 2

H. H. HUTCHINS.  
FRUIT AND VEGETABLE ASSORTER.

No. 465,856.

Patented Dec. 29, 1891.



WITNESSES.

Charles R. Buchanan  
L. S. Moulton.

INVENTOR

Henry H. Hutchins

BY

Lawrence V. Moulton  
ATTORNEY.



## UNITED STATES PATENT OFFICE.

HENRY H. HUTCHINS, OF GANGES, MICHIGAN.

## FRUIT AND VEGETABLE ASSORTER.

SPECIFICATION forming part of Letters Patent No. 465,856, dated December 29, 1891.

Application filed August 6, 1891. Serial No. 401,844. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY H. HUTCHINS, a citizen of the United States, residing at Ganges, in the county of Allegan and State of Michigan have invented certain new and useful Improvements in Fruit and Vegetable Assorters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in machines for assorting or grading fruits and vegetables, and more particularly to improvements in the style of machines for which I have made application for Letters Patent, filed January 30, 1890, Serial No. 338,693.

The object of my invention is to provide such machines with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a device embodying my invention; Fig. 2, a longitudinal vertical section of the same on the line  $x x$  of Fig. 1; Fig. 3, an end elevation, partly in section on the line  $y y$  of Fig. 2; and Fig. 4, a transverse vertical section on the line  $z z$  of the same figure.

Like letters refer to like parts in all the figures.

Journalled within a suitable frame-work and near the center of the machine is the driving-shaft A, having the fly-wheel T at one end and the pulley K K' at the other end and rotated by the pitman S and treadle R.

Journalled near each end of the machine and in the same horizontal plane are two shafts A' and A'', each having at the middle a pulley B, around which are two parallel belts C C a short distance apart, said belts having their adjacent edges running in grooves in the opposite sides of a middle guide D, the upper side of which is oppositely inclined toward the respective rolls F, which rolls are parallel to and opposite the outer edges of said belts. These rolls are provided with spiral ribs F' and journalled in hangers H, which hangers are mounted upon transverse rods

G, each having right and left threads engaging corresponding threads in the respective hangers.

E are side boards arranged parallel to the rolls F, having their lower edges above the same, and pivoted to the hangers H by the rods I, their upper edges being inclined outward and resting against the inner sides of the frame.

K'' is a pulley on the shaft A', which is connected to K' on the driving-shaft by a belt J' to drive the belts C C. The pulley B on the shaft A' is smaller than the corresponding pulley on A'', whereby the upper and lower linear parts of the belts C C are oppositely inclined, the upper parts descending from the larger to the smaller pulley and the lower parts descending from the smaller to the larger pulley. The respective upper and lower guides D D, rolls F, and side boards E are also inclined to correspond with the portion of the belts C with which they coast.

Beneath the upper system is the inclined floor L, with its lower end near and above the upper end of the lower system, and beneath the lower system another inclined floor leading to the discharge-chute M<sup>3</sup>. Beneath the respective lower ends of each system are other similar discharge-chutes M' M<sup>2</sup>. On the lower end of the lower guide E is an inclined guard E', which deflects the stock away from the pulley B and prevents it from being caught between said pulley and the belts C C. All of the rolls F are provided with pulleys F'' on their adjacent ends, said pulleys being substantially in the same vertical plane and rotated in the direction indicated by the arrows by a single belt J, which runs from the upper side of the pulley K to the idler U, thence around the upper right-hand pulley, thence downward to and around the lower right-hand pulley, thence laterally to the idler U'', thence returning across to and around the lower left-hand pulley, thence upward to and around the upper left-hand pulley, thence across to the idler U', and thence to the lower side of the driven pulley K, being led around the various pulleys, as indicated by the arrows, and crossed, as indicated in the drawings.



- N is the inclined feed-hopper, pivoted at its lower end to the frame of the machine and supported at its upper end by the pivoted leg N'. A portion of the floor of said hopper is  
 5 grated, as shown at O, and beneath the same is an inclined chute P, having segmental sides P', pivoted at its upper end beneath the lower end of the grating and adjustably supported by one or more straps Q at its lower end.
- 10 The operation of my device is as follows: The fruit, vegetables, or other stuff to be assorted is put into the upper end of the hopper N, and, passing over the grating O, all sticks, leaves, and portions too small to be of  
 15 value fall through upon the chute P and, sliding down, fall to the ground or into a suitable receptacle. When out of use, the hopper N is turned over upon the top of the machine. P then incloses and protects the bars O  
 20 from accidental damage. Passing down upon the upper system the fruit, &c., is divided by the inclined upper surface of the guide D, all but the largest falling through between the belts C and the rolls F, which rolls are adjust-  
 25 ed relative to said belts by turning the rods G. These larger ones, resting on the outer edges of the belts, are carried forward by the same, and, aided by the spiral form of the ribs of the rolls, pass down and are discharged at M'.  
 30 All those that pass through the upper system fall upon the upper end of the lower system, where they are again taken up by the inner surface of the same belts C C. These lower rolls, being properly adjusted to the said belts,  
 35 take out another smaller grade, and the residue, passing through, is discharged at M<sup>3</sup>, while the middle grade is discharged at M<sup>2</sup>. It will be observed that by the construction shown the rolls are equally and simultaneoulsy ad-  
 40 justed by turning the rods G and that the side boards are at the same time automatically maintained in proper relation to the rolls; also, that the stuff passing through the screen O is discharged from the machine and  
 45 the screen protected from accidental breakage when out of use.

What I claim is—

1. In combination with an inclined feed-hopper pivoted at one end, having a grated  
 50 portion and adapted to fold upon the top of the machine, and oppositely-inclined chute pivoted to the lower end of said hopper at one end and adjustably attached to said hopper at its opposite end, said chute also adapted

to cover and protect said grated portion of said hopper, substantially as described.

2. The combination of two shafts in substantially the same horizontal plane, each having a pulley, one of which is larger than the other, two parallel belts around said pulleys, a guide having oppositely-inclined upper surfaces above the adjacent edges of said belts, and rolls parallel with the outer edges of said belts, substantially as described.

3. The combination of parallel rolls adapted to rotate in opposite directions, grading-belts between said rolls, oppositely-inclined pivoted side boards above said rolls, said side boards and rolls being journaled in hangers mounted on transverse rods having right and left screw-threads engaging corresponding threads in said hangers, substantially as described.

4. The combination of two shafts in the same plane, having pulleys of different sizes, two parallel belts around said pulleys, grooved guides engaging the inner edges of said belts, said guides having oppositely-inclined upper surfaces, and rolls parallel to the outer edges of said belts, substantially as described.

5. The combination of two shafts in the same plane, pulleys of unequal diameters on said shafts, parallel belts on said pulleys, guides having grooves engaging the adjacent edges of said belts and oppositely-inclined upper surfaces, and rolls opposite the outer edges of said belts, journaled in hangers mounted on rods having right and left hand screw-threads engaging corresponding threads in said hangers, and side boards above said rolls pivoted to said hangers at their lower edges and outwardly inclined at their upper edges, substantially as described.

6. In a fruit-grading machine, parallel belts, a guide having grooves engaging the adjacent edges of the same and oppositely-inclined upper side above the same, and rolls adjacent to the outer edges of said belts, adapted to rotate in opposite directions and having oppositely-inclined spiral ribs, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY H. HUTCHINS.

Witnesses:

DENNIS L. ROGERS,  
 LOIS MOULTON.

**Defendant's Exhibit "I"—Letters Patent to F. N. Ellithorpe for Machine for Sorting or Grading Fruit, etc.**

[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Defts. Exhibit No. "I." Filed July 12, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.

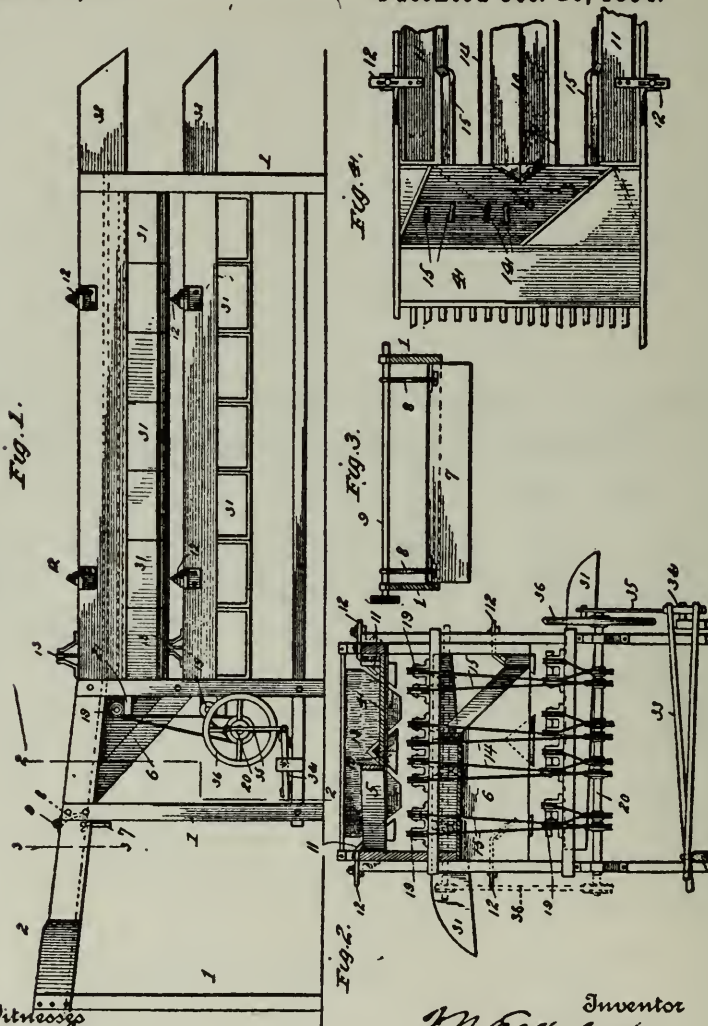
(No Model.)

3 Sheets—Sheet 1.

**F. N. ELLITHORPE.****MACHINE FOR SORTING OR GRADING FRUIT, &c.**

No. 527,953.

Patented Oct. 23, 1894.



Witnesses  
*E. M. Lawrence*  
*E. A. Muzzey*

Inventor  
*F. N. Ellithorpe*  
 By *Alexander Davis*  
 Attorneys

(No Model.)

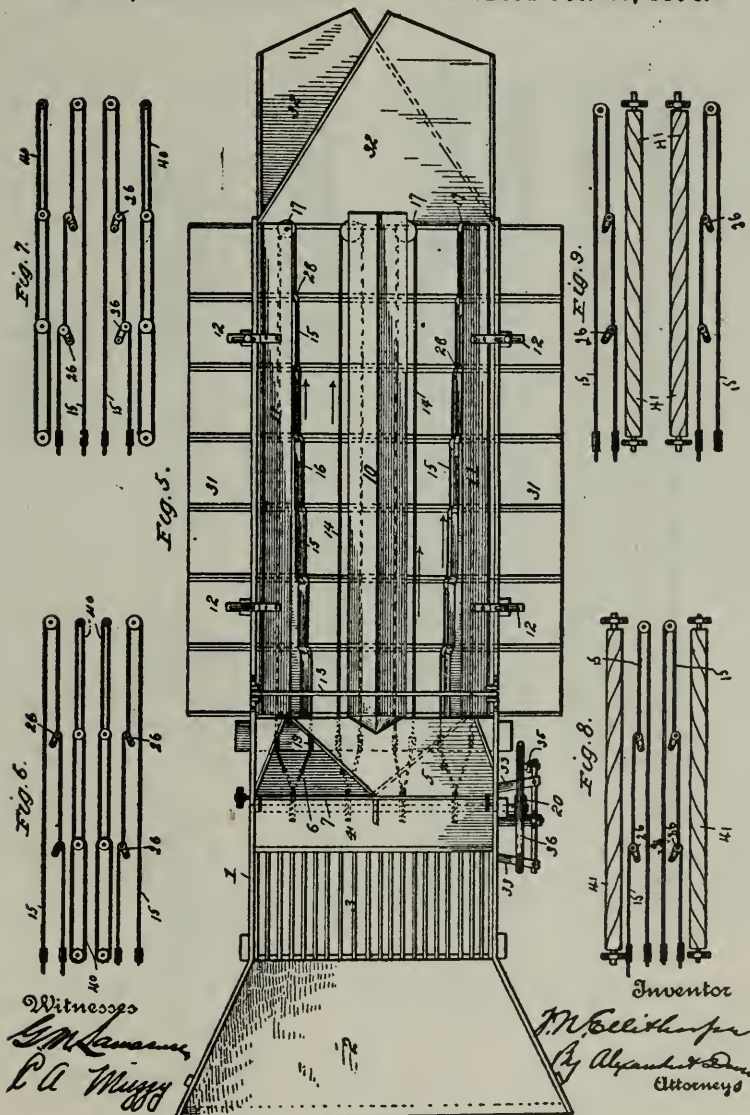
3 Sheets—Sheet 2.

F. N. ELLITHORPE.

MACHINE FOR SORTING OR GRADING FRUIT, &c.

No. 527,953.

Patented Oct. 23, 1894.





(No Model.)

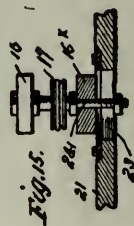
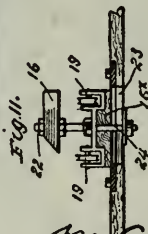
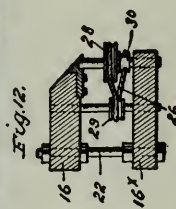
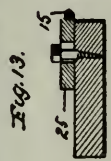
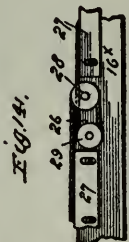
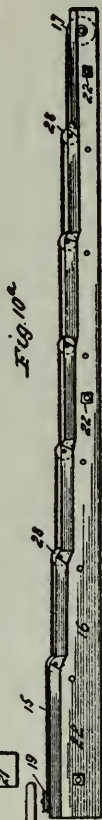
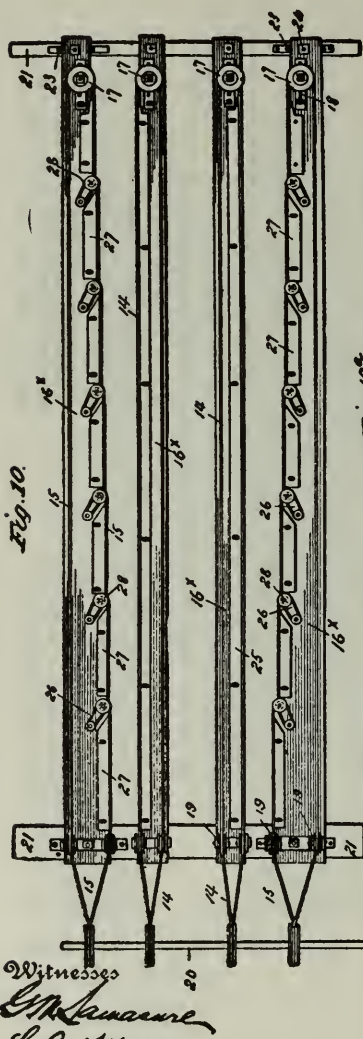
3 Sheets—Sheet 3.

F. N. ELLITHORPE.

MACHINE FOR SORTING OR GRADING FRUIT, &amp;c.

No. 527,953

Patented Oct. 23, 1894.



Witnesses  
*E. M. Lawrence*  
*E. D. Meyer*

Inventor  
*F. N. Ellithorpe*  
 By *Alexander Davis*  
 Attorneys



## UNITED STATES PATENT OFFICE.

FRANK N. ELLITHORPE, OF PEACHTON, OHIO.

MACHINE FOR SORTING OR GRADING FRUIT, &amp;c.

**SPECIFICATION** forming part of Letters Patent No. 527,953, dated October 23, 1894.

Application filed January 20, 1894. Serial No. 497,471. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK N. ELLITHORPE, a citizen of the United States, residing at Peachton, in the county of Ottawa and State Ohio, have invented certain new and useful Improvements in Machines for Sorting or Grading Fruits, &c., of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a side elevation of the improved machine; Fig. 2, a vertical sectional view thereof taken on the line 2—2 of Fig. 1; Fig. 3, a sectional view taken on the line 3—3 of Fig. 1 and showing the gate; Fig. 4, a plan view of the front end of the lower grading diaphragm; Fig. 5, a plan view of the machine; Figs. 6, 7, 8, and 9, diagrams of modified forms of the grading devices; Fig. 10, a detail plan of one of the grading diaphragms, the covering or protecting plates being removed; Fig. 10a, a detail plan of one member of the grading channels; Fig. 11, a detail transverse section of the upper end of the adjustable member; Fig. 12, a detail cross section of the adjustable member taken at a point along its length; Fig. 13, a detail transverse section of the lower part or bar of one of the members, showing the adjustable plate for assisting in supporting the traveling rope or belt; Fig. 14, a detail plan of the same, showing said adjustable plates and also a modified arrangement of the pulleys carrying the belt or rope, and Fig. 15 a detail cross section of the lower end of the adjustable member.

This invention is designed to provide an improved machine for grading or separating oranges and other fruits as regards their sizes and also for assorting them as regards their color or other characteristics, as fully hereinafter appears.

Referring to the drawings, the numeral 1 designates a suitable frame; 2, a canvas hopper formed at the upper or forward end of the machine; 3, a grating of the usual construction; 4, the assorting-board adjoining the grating and conveying the fruit to the chutes leading to the upper and lower diaphragms; 5, a chute leading to the upper diaphragm; 6, a descending chute leading to the lower diaphragm, and 7 a vertically-movable gate extending transversely of the machine in front of the chutes, said gate work-

ing through a slot in the sorting-board and being raised and lowered by means of a pair of hook-shaped arms 8 carried by a transverse shaft 9 and working through openings in the upper edge of the gate, as shown most clearly in Fig. 3.

The upper and lower grading devices are constructed precisely alike and it will be understood that a description of one set of devices will answer for both, the same numerals being used to designate corresponding parts in the two sets of devices.

Each grading diaphragm consists of two channels separated by a central dividing-board 10, having its sides inclined in opposite directions and extending from the chute 5 to the rear end of the frame. To assist the central part 10 in directing the fruit into the grading channels, a downwardly and inwardly-inclined board 11 is supported along each side of the machine, each of said boards being adjustably connected and supported upon the upper edge of the frame by means of slotted plates 12 and suitable bolts passing therethrough.

Across each diaphragm near the upper end thereof is suspended a flexible retarder 13, which serves to break the force of the incoming fruit and prevent it rolling down the channels too rapidly. To convey the fruit along the channels, a pair of endless belts 14 and 15 are employed for each channel, said belts extending the full length of the channels and being supported a little below the guides 10 and 11 by means of suitable pulleys journaled on vertical shafts between the longitudinal bars 16 and 16x, one pair of said bars being employed for each endless conveyor.

The conveyers at their rear or lower ends pass around pulleys 17 journaled on a vertical shaft supported between bars 16 and 16x, said pulleys being each longitudinally adjustable in slotted plates 18 in order that the conveyers may be kept sufficiently taut, and at their upper ends they each pass over a set of vertical pulleys 19 journaled in suitable brackets supported between said bars 16 and 16x, and from these pulleys 19 the conveyers pass down and around suitable pulleys on a driving shaft 20 journaled in the lower part of the frame.

The longitudinal bars carrying the conveyers are supported at their ends on transverse bars 21 supported in the frame of the machine, and the bars of each pair are connected together and supported the proper distance apart by vertical bolts 22, the bolts being provided with suitable heads and nuts in order that the bars may be adjusted vertically with respect to each other.

In order that the width of the grading channels may be varied, by adjusting one of the conveyers to or from its opposite member, one set of bars of each channel is adjustably supported at its ends upon slotted plates 23 fixed to the transverse bars 21, the clamping bolts 24 passing down through the bars and through said slotted plates, as shown most clearly in Fig. 11.

The inner conveyer of each channel is straight and is supported by the strip 25, adjustably bolted to the under bar 16\* and extending out over the edge of the same, and partially under the rearwardly or downwardly-moving part of the conveying cord, as shown most clearly in Fig. 13.

To form a series of rectangular grading openings in each channel, said openings gradually increasing in width from the upper end of the channel to the lower end thereof, a series of loops 26 are formed in each of the conveyers or belts 15, the portions of said belts between the loops being supported by adjustable plates 27 similar to the strips 25. The loops 26 are each formed by carrying the belt first around a horizontal pulley 28 journaled near the inner edges of the bars 16 and 16\* and then carrying it around another pulley 29 and from thence around a smaller pulley 30, carried directly under said pulley 28, the belt then passing down the channel to the next pulley 28 and there formed into another loop like the one just described and so on to the end of the channel, each loop enabling a sort of offset to be formed in the belt to make each succeeding opening slightly larger than the preceding opening.

As shown in Fig. 14, the small pulley 30 may be omitted by supporting pulley 29 nearer the inner edges of bars 16\* and carrying the belt from said pulley 29 under the inner edge of pulley 28, as shown; and the pulley 28 may have its shaft set on a slight incline if desired in order to raise the inner edge of the pulley and permit the belt to pass freely under it.

Under each diaphragm is arranged a series of laterally-extending spouts 31 which serve to receive the fruit from the different sized openings and convey it out at the side of the machine, and projecting rearwardly from each diaphragm is a tail-spout 32 to receive the fruit that does not pass through the grading openings. As will be seen the number of spouts correspond to the number of grading openings formed in the channel, and it will also be seen that the number of openings and

spouts may be varied to suit the exigencies of the case. As shown, the inner edges of the upper plates or bars 16 are notched or cut out to correspond to the rectangular grading openings, and the upper corners of these cut-out portions are beveled to throw the fruit upon the traveling conveyers. As will also be seen the conveyers of both diaphragms are driven from pulleys on the shaft 20 and some of the conveyers of the upper diaphragm work through openings in the descending chute 6, as shown most clearly in Fig. 2.

Should it be undesirable to pass the upper conveyers down through chutes 6, they may be passed over pulleys on a separate shaft journaled in the frame above said chute and said shaft may be driven by a suitable belt or chain 36 connecting it to the lower shaft, as shown in dotted lines in Fig. 2. If desired the descending chute 6 may be formed of flexible material, such as canvas, to prevent injury to the fruit.

In the diagram shown in Fig. 6, the inner conveyers are formed of a series of sprocket chains 40, suitably mounted, and in Fig. 7 the same arrangement of sprocket chains is shown excepting that the sprocket chains are arranged outside of the conveyers having the looped offsets; and in Figs. 8 and 9 the belt-conveyers are used in connection with suitable longitudinal rollers 41 which may be covered and rotated in order to assist in conveying the fruit.

It will be observed that the looped conveyer may be used in the above combinations and also in others without departing from the scope of the invention.

The shaft 20 may be driven in any suitable manner, but I prefer the devices shown, which consist of a pair of foot-levers 33 connected to the opposite ends of an oscillating bar 34, said bar being connected by means of a pitman 35 to a wrist-pin carried by a balance or fly-wheel 36 on the shaft 20.

As the fruit passes down over the grading and sorting board, the gate being lowered, the operator sorts the fruit by hand and directs one kind into the upper chute and the other kind into the descending chute, and as the fruit passes down the channel it is graded according to size and conveyed by the spout into suitable receiving vessels. It will thus be seen that the fruit may be readily assorted with respect to its color or other characteristics and also graded according to sizes.

The looped conveyers may be used on both sides of channels at the same time, or only one looped conveyer may be used as shown in Fig. 10, but this may be used on either side of channels to suit the case.

It will be clearly seen, that instead of two grading channels, as shown in Fig. 10, the number may be varied, and but one channel used or more, as the case may be the other members and parts corresponding. It will also be observed that the inside plates may

be made adjustable, and the outside plates stationary, or they may both be made adjustable or both stationary.

When grading fruit that does not require assorting, the lower chute, grading channels, spout conveyers, &c., may be disposed of, and the upper set only used.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a machine for grading oranges, the combination of a grading channel, a chute leading thereto, a hopper connected to the chute, a vertically movable gate working through an opening in the bottom of the chute, a traverse shaft carrying a pair of curved hooks 8, said hooks working in openings in the gate, substantially as described.

2. In a machine for grading and assorting oranges, the combination of a frame, a single hopper, two adjacent chutes leading therefrom, one of the chutes descending and terminating below the other, two grading channels supported one above the other and connected to the respective chutes, a series of troughs supported beneath each grading channel and extending outwardly from the frame, the upper series of troughs projecting out on the opposite side from the other series, whereby the fruit may be graded as to size and assorted as to quality, substantially as described.

3. In a machine for grading fruit, a grading

channel consisting of two members, one of said members consisting of an endless cord 35 or belt looped at intervals to form a series of grading-openings, substantially as described.

4. In a machine for grading fruit, a grading-channel consisting of two endless conveyers or belts and pulleys for supporting the same, 40 one of said belts having formed in it at intervals along its length offsets, whereby a series of rectangular grading openings is formed, each successive opening being wider than the preceding opening, substantially as de- 45 scribed.

5. In a machine for grading fruit, a grading-channel consisting of two members, one of said members consisting of an endless belt or conveyer, said belt or conveyer having loops 50 26 formed in it at intervals, pulleys carrying these loops, and means for driving the belt, substantially as described.

6. In a machine for grading fruit, a grading-channel consisting of two members, each of 55 said members consisting of a pair of longitudinal bars adjustably connected together and supported one above the other, and an endless conveyer carried by pulleys journaled between the bars, substantially as described. 60

In testimony whereof I affix my signature in presence of two witnesses.

FRANK N. ELLITHORPE.

Witnesses:

J. W. GAMBLE,

A. J. OWEN.



**Defendant's Exhibit "J"—Letters Patent to C. Rayburn for Apparatus for Sorting and Distributing Fruit.**

[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Defts. Exhibit No. "J." Filed July 12, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.

No. 741,928.

PATENTED OCT. 20, 1903.

C. RAYBURN.

APPARATUS FOR SORTING AND DISTRIBUTING FRUIT.

APPLICATION FILED DEC. 18, 1902.

NO MODEL.

2 SHEETS-SHEET 1

Fig. 1.

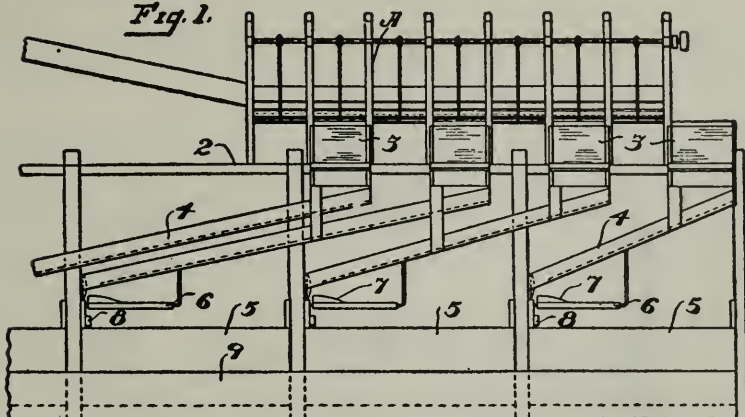
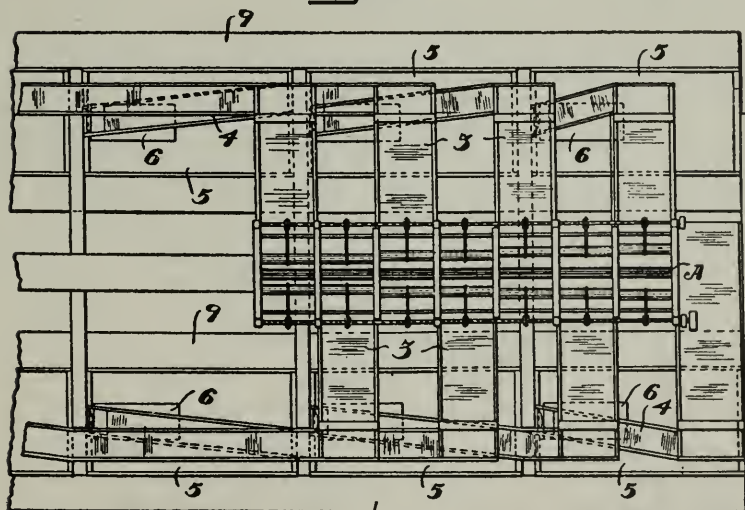


Fig. 2.



Witnesses,  
*W. H. Morse*  
*Dudley Mack*

Inventor,  
*Charles Rayburn*  
*By Dury Stoughton & Co.*



No. 741,928.

PATENTED OCT. 20, 1903.

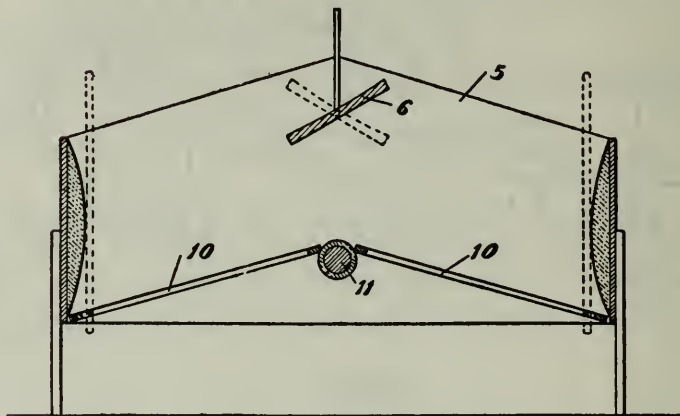
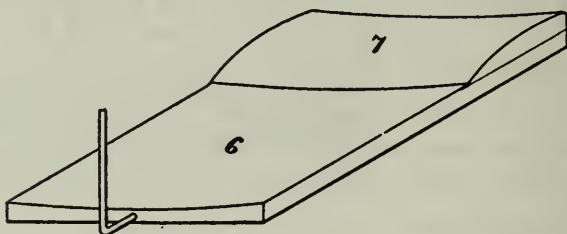
C. RAYBURN.

APPARATUS FOR SORTING AND DISTRIBUTING FRUIT.

APPLICATION FILED DEC. 10, 1902.

NO MODEL.

3 SHEETS—SHEET 3.

Fig. 3.Fig. 4.

Witnesses,

*James**Dudley M. M.*

Inventor,  
*Charles Rayburn*  
*Dwight Strong*  
*att'n*

## UNITED STATES PATENT OFFICE.

CHARLES RAYBURN, OF LINDSAY, CALIFORNIA.

APPARATUS FOR SORTING AND DISTRIBUTING FRUIT.

SPECIFICATION forming part of Letters Patent No. 741,928, dated October 20, 1903.

Application filed December 18, 1902. Serial No. 135,725. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES RAYBURN, a citizen of the United States, residing at Lindsay, county of Tulare, State of California, have invented an Improvement in Apparatus for Sorting and Distributing Fruit; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improved means for distributing fruit from the grading-machine to the packers.

In the preparation of fruit, such as oranges, for the market, the oranges are run through a grading-machine and sorted according to standard sizes. The assorted fruit is then packed into boxes ready for shipment. Many of these machines are capable of handling several car-loads of fruit in a day; but the output is hampered often for lack of floor-space to accommodate the packers or from the inherent incapability of the means at hand to distribute the fruit in such manner that sufficient packers can be employed.

The object of my invention is to provide suitable means for the rapid handling of the assorted fruit by affording accommodation for a greater number of packers than it has heretofore been generally possible to employ, at the same time economizing floor-space.

It consists of the parts and the construction and combination of parts hereinafter more fully described, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my apparatus. Fig. 2 is a transverse section of same. Fig. 3 is a transverse section of bin. Fig. 4 is a perspective view of tilting board.

A represents a suitable grader or sizer supported upon a platform 2, situated at a convenient height above the floor, so that a man may easily move about beneath it. The assorted oranges pass according to their respective grades into troughs 3, leading outwardly from each side of the grader to the edge of the platform. Each of the troughs 3 discharges into a second trough 4, running at right angles to troughs 3, whence the fruit is delivered into their respective bins 5. The troughs are all lined with canvas or like suitable material to afford a proper resilient surface over which the oranges may roll without

injury. Just below the discharge end of each trough 4 and extending parallel therewith is a tilting inclined board 6, slightly concaved, by which the fruit is delivered to either one side or the other of the bin. The head or upper end of the board onto which the fruit is first received is provided with a pillow or pad 7, as shown, to deaden the fall of the fruit. The board is suitably journaled at its ends, so as readily to be tilted to one side or the other, a cleat 8 limiting the movement of the board about its pivots.

When one side of a bin is filled sufficiently, its board is turned to deflect the fruit to the other side.

The bins are disposed in line beneath the boards and extend parallel with the axis of the grader A and on either side thereof. Their size depends on the output of the machine. They are each adapted to accommodate one or more packers on either side, the packers working at suitable tables 9, those on one side of the bins standing beneath the platform. Thus it is seen that I may very materially increase the output of a single machine by disposing the platform and providing the apparatus described whereby four rows of packers may be accommodated, whereas without such construction the output would be reduced, owing to inability to provide standing room for the packers. As it is now I am able to increase the number of packers without unduly lengthening the bins as would be the case if only access could be had to them at one side or if there were bins only on one side of the grader.

The bottoms of the bins slope from the center to the padded sides. Preferably these bottoms are each made in two sections 10, of canvas stretched over frames, which are hinged to the sides of a bin and ordinarily rest on a padded ridge-pole 11, disposed centrally beneath the deflector 6. The ends of the frames are supported on suitable cleats secured to the ends of the bin.

The object of forming the bottoms in movable sections is to allow of their being turned up edgewise during the idle season and prevent the collection of dust and to enable the workmen to get at the bins readily in order to clean them out at any time.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a fruit-grader having an inclined lateral discharge-conveyer, of a bin having a central longitudinal ridge-pole with oppositely-inclined bottom sections, said ridge-pole disposed essentially in a plane parallel with the discharge of said conveyer, whereby discharge into the bin may take place equally on each side of the bin and without injury to the fruit, and box-supports upon each side of said bin.

2. In a device of the class described a receiving-bin having a padded ridge-pole along its longitudinal center, in combination with oppositely-inclined hinged sections forming the bottom of the bins and having their inner sides normally resting upon the ridge-pole.

3. In a machine of the character described, the combination with bins having the oppositely-inclined bottoms, of a tilting inclined board mounted above the apex of the bottoms and having a transversely-concaved upper surface, and means limiting the movement of the board about its axis.

4. In a machine of the character described, the combination with bins having the oppositely-inclined bottoms, of a tilting inclined board mounted above the apex of the bottoms, and transversely concaved and provided with

a pillow or pad at its head, and a cleat below the board and limiting the tilting movement of the same.

5. In a machine of the character described, the combination of a bin having a bottom composed of frames and a fabric covering stretched over the same, said frames pivoted at opposite sides of the bin, and a ridge-pole or rest centrally located between the frames and adapted to support the free ends thereof said frames capable of being turned up edgewise to give access to the bins for cleansing purposes and to prevent the collection of dust.

6. In a machine of the character described, the combination of a bin having padded sides and a bottom composed of oppositely-inclined frames and a fabric covering therefor, said frames pivoted at opposite sides of the bin, and a padded ridge-pole centrally placed between the frames and adapted to support the free ends thereof, said frame capable of being turned up edgewise to give access to the bins for cleansing purposes and to prevent the collection of dust.

In witness whereof I have hereunto set my hand.

CHAS. RAYBURN.

Witnesses:

W. A. FINLEY,  
E. A. McCORD.

**Defendant's Exhibit "K"—Letters Patent to F. F.  
Backstrom for Assorting Apparatus.**

[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "K." Filed  
July 12, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

No. 835,805.

PATENTED NOV. 13, 1906.

F. F. BACKSTROM.  
ASSORTING APPARATUS.  
APPLICATION FILED DEC. 19, 1905.

4 SHEETS—SHEET 1

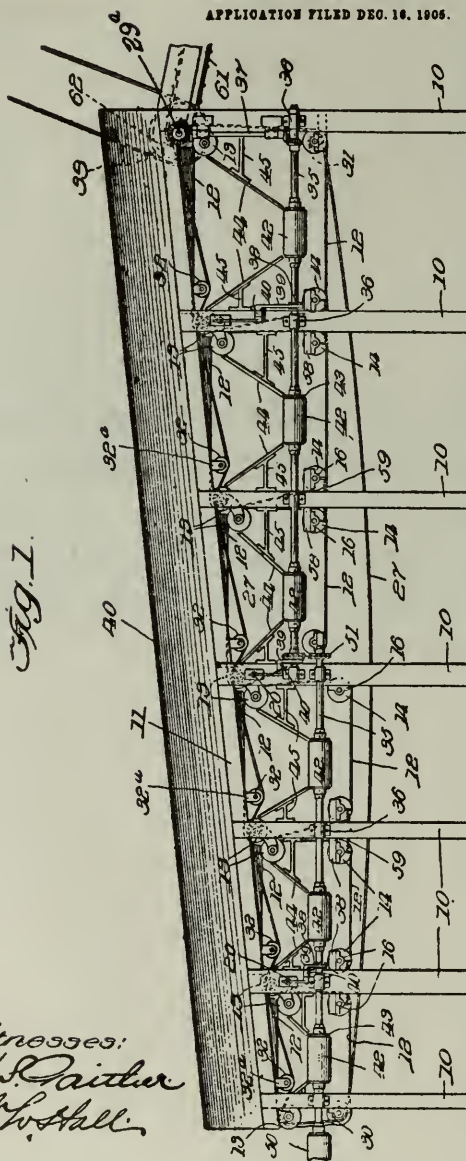


Fig. 1.

Witnesses:  
H. R. Painter  
W. H. Hall.

Inventor:  
Fridolf F. Backstrom  
By Paul Brown  
Att'y

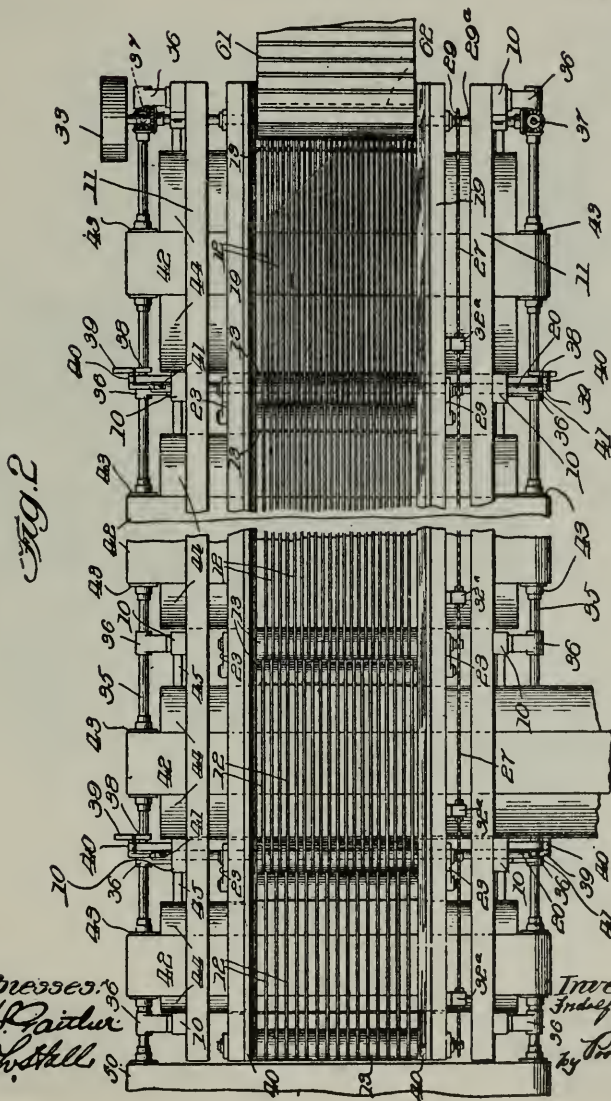


No. 835,805.

PATENTED NOV. 13, 1906.

F. F. BACKSTROM.  
ASSORTING APPARATUS.  
APPLICATION FILED DEC. 16, 1906.

4 SHEETS-SHEET 2



Witnesses:  
Z. B. Paine  
W. H. Hall

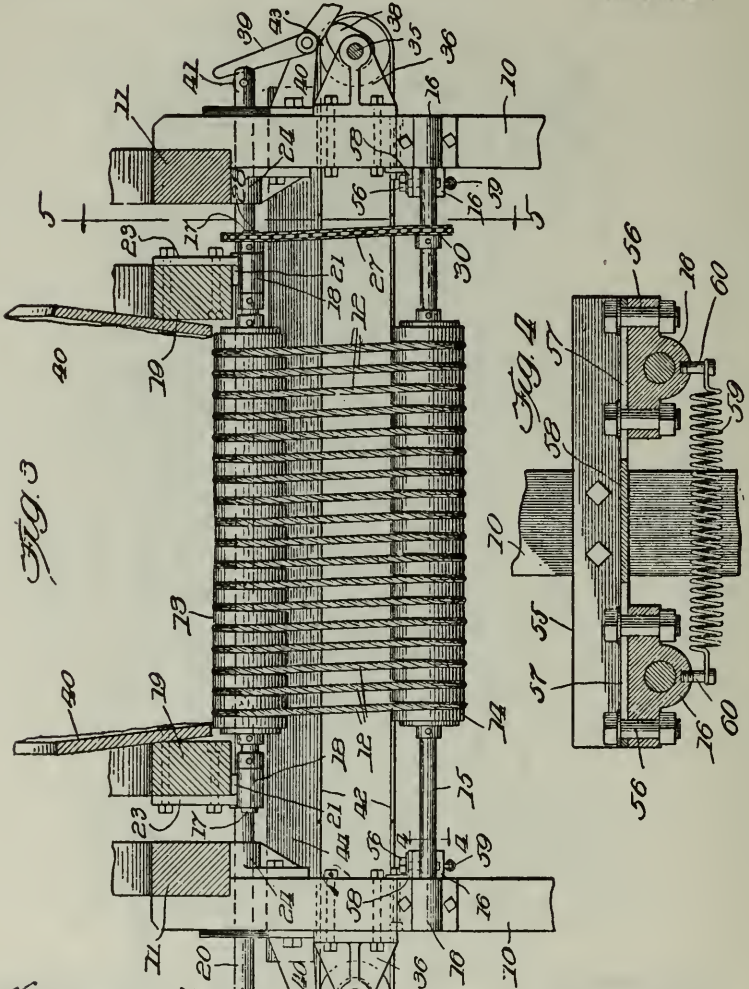
Inventor:  
Fredrick Backstrom  
By R. B. Brown  
attys

No. 835,805.

PATENTED NOV. 13, 1906.

F. F. BACKSTROM.  
ASSORTING APPARATUS.  
APPLICATION FILED DEC 18, 1905.

4 SHEETS-SHEET 3



Witnesses:  
H. S. Gaither  
W. L. Hall,

Inventor:  
Fridolf F. Backstrom  
by Paul Brown  
att'y





## UNITED STATES PATENT OFFICE.

FRIDOLF F. BACKSTROM, OF CHICAGO, ILLINOIS.

ASSORTING APPARATUS.

No. 835,805.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed December 16, 1905. Serial No. 292,042.

*To all whom it may concern:*

Be it known that I, FRIDOLF F. BACKSTROM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Assorting Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the numerals of reference marked thereon, which form a part of this specification.

This invention relates to an improved assorting or grading apparatus designed to receive articles of different sizes from a mass and to assort them into different groups characterized by uniform-sized individual articles in each group. The machine is adapted for use in assorting fruits, nuts, pickles, or, in fact, any article or commodity of varying size which is to be assorted in the manner described.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of a machine made in accordance with my invention. Fig. 2 is a top plan view thereof, partially broken away. Fig. 3 is a transverse vertical section of the machine. Fig. 4 is an enlarged detail section taken on line 4 4 of Fig. 3. Fig. 5 is a vertical longitudinal section taken on line 5 5 of Fig. 3. Fig. 6 is a cross-section taken on line 6 6 of Fig. 5.

An assorting apparatus made in accordance with my invention embraces, in general terms, a plurality of sections located successively one in advance of the other and provided with traveling forwarding-surfaces which carry the articles to be assorted from one end of the apparatus to the other, and the construction of which forwarding-surfaces is such as to provide longitudinal spaces in each section through which the articles to be assorted drop, the space of succeeding sections being made gradually wider from the receiving to the discharge end of the apparatus, so that the smallest articles are dropped through the spaces of the first section of the apparatus, the larger articles are carried to the delivery end of the apparatus, and the articles of intermediate sizes are dropped through the spaces of the forwarding-surfaces of the intermediate sections thereof. The said carrying-surfaces are formed by the upper laps of ropes or strands which are trained about suitably-ar-

ranged pulleys, and the ropes of the several sections are spaced apart the required distance to provide the graduated spaces through which the articles to be assorted are dropped. Means are provided which act upon the articles being assorted to facilitate the passage of said articles through the assorting-spaces formed between the forwarding-ropes. This may be accomplished by mounting the rollers engaged by the upper laps of said ropes in a frame which is given lateral vibration or may be otherwise accomplished. Located beneath the ropes constituting the forwarding-surface of each section in position to receive the articles dropping through the spaces between the ropes are means for conveying away from the apparatus the several sizes of the assorted articles. Said conveying means consists conveniently of transversely disposed conveyer-belts which travel toward the sides of the apparatus.

I have herein illustrated one approved embodiment of my invention, which is herein-after described in detail with reference to the drawings, but it will be understood that the apparatus shown is merely illustrative and the detailed description which follows is not intended as limiting the scope of the invention.

The illustrated apparatus comprises an outer frame consisting of a plurality of standards or posts 10 10 and two side rails 11 11, fixed to the upper ends of said posts, said side rails slanting from the receiving to the discharge end of the apparatus.

12 12 designate the ropes or strands the upper laps of which constitute the forwarding and assorting surfaces of the section. The said forwarding-ropes are arranged to constitute a plurality of assorting-sections, each section differing from the others in the width of spaces between the ropes. The several sections of forwarding-ropes are supported upon a common frame, as will hereinafter appear, and, as shown, the ropes of each section are distinct from the ropes of the other sections. The forwarding-ropes of each section are trained about two upper and two lower rollers 13 13 and 14 14, respectively. The shafts 15 of the lower rollers are mounted in bearing-boxes 16, affixed to the standards of the main frame, while the shafts 17 of the upper rollers are mounted in bearing-boxes 18, which are fixed to the side members 19 19 of an inner frame, which latter is the vibratory frame herein

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before described. The transverse members of said inner vibratory frame consist of shafts 20 20, as herein shown, which extend through and are fixed to sleeves 21, Figs. 3 and 5, which are fixed to the side members or rails of the inner frame, the said sleeves 21 being herein shown as made an integral part of a casting 23, on which is formed the bearing-sleeves 18 for shafts of the adjacent upper rollers 13, as indicated in Fig. 5. It will be observed that the upper roller 13 at the discharge end of each section is located somewhat above the level of the adjacent upper roller 13 at the receiving end of the adjoining section, so as to facilitate the delivery of the articles being assorted from one set of forwarding-ropes to the next succeeding set. The bearing-sleeves 18 of such two adjacent upper rollers are therefore conveniently formed integral with the casting 23, as are also the sleeves 21 for the shafts 20 at the points where such sleeves occur. Set-screws 22 22 fix the said shafts 20 to the sleeve 21, Fig. 5.

The rollers 13 and 14 are peripherally grooved to maintain the ropes properly spaced. The upper rollers 13 only partake of the vibratory motion of the inner frame, the lower rollers 14 remaining stationary. Said shafts 20 constitute not only the transverse members of the inner vibrating frame, but are also associated with the devices for giving vibratory motion to the frame, as will hereinafter appear. To this end the shafts extend laterally beyond the outer side frames and have endwise-sliding movement in bearing-brackets 24, that are fastened to the standards 10, as shown in Fig. 3.

The upper rollers 13, about which the ropes are trained, are driven by means of a sprocket-belt 27, which is trained over sprocket-wheels 28, fixed to certain of the upper rollers 13. The said belt is trained also about a sprocket-wheel 29, fixed to the shaft 29a, extending transversely across the receiving end of the machine, and is trained also about idler sprocket-wheels 30 31, Fig. 1, at the delivery and receiving ends of the apparatus, respectively. The sprocket-belt is held in mesh with the sprocket-wheels 28 of the upper rollers 13 by means of idlers 32, mounted in brackets 32a, fixed to the adjacent side rail 19 of the vibrating frame. The transverse shaft 29a constitutes the driving-shaft of the apparatus and is driven through the medium of a belt-wheel 33 at one side of the apparatus. It will be observed that, as herein shown, but one of the upper rollers 13 of each section (that at the discharge end of the section) is driven, by the sprocket-belt 27, while the other roller 13 and the lower rollers 14 are idler-rollers.

Referring now to the means for vibrating the inner frame and upper rollers and the upper laps of the forwarding-ropes, these parts are made as follows: 35 35 designate horizon-

tal rotative shafts extending longitudinally of the apparatus, one on each side thereof, and mounted in bearing-brackets 36, extending laterally from the posts 10 of the outer frame of the apparatus. Said shafts are 70 driven from the main shaft 29a, through the medium of two vertical shafts 37 37, located at the feed end of the apparatus, which are connected at their upper and lower ends, respectively, by beveled gears with said main 75 shaft and said longitudinal shafts 35. In this manner said shafts 35 are rotated in opposite directions. Fixed to said rotary shafts 35 adjacent to each of the transverse shafts 20 of the vibratory frame are cams 80 38, which engage the lower ends of levers 39 39, pivoted to brackets 40, extending laterally from the main frame of the machine and bearing at their upper ends against the ends of said shafts 20. Preferably said shafts 85 are provided with antifriction-rollers 41, against which the upper ends of said levers 39 directly bear. The cams 38 of the shafts 35 are so set that the levers 39, associated with the opposite ends of each shaft, are 90 swung alternately on their pivots, whereby the levers at one side shift the vibrating frame in one direction and the levers at the other side shift the frame in the opposite direction. 95

The upper laps of the forwarding and assorting ropes 12 of each section are disposed substantially horizontal, and the receiving end of each forwarding-surface formed by said separated ropes is located below the discharge end of the section in rear thereof, as clearly shown in Figs. 1 and 5. Side boards 40 are provided at the sides of said forwarding-surfaces of the sections, which extend 100 from end to end of the apparatus and hold the articles being assorted properly in place on the belts. The lower margins of said boards 40 are fashioned to fit closely the successively lower elevations of the upper laps of the forwarding-ropes, as indicated clearly 110 in Fig. 5.

Located beneath each section of the upper laps of the forwarding-ropes before described is a conveying device for conveying the assorted articles from the machine. Said 115 conveying devices consist, as herein shown, of transverse belts 42, trained about rollers or pulleys 43 on the side shafts 35, each located centrally beneath the upper laps of the forwarding-ropes of its section. The assorted 120 articles are directed to said shelf 42 by means of oblique directing-boards 44 44, which are fastened to the posts 10 of the main frame by means of brackets 45 45. Said pulleys 43 are fixed to the shafts 35 between collars 46, 125 which hold the pulleys from endwise movement. The companion pulleys 43 on opposite sides of the apparatus, about which each belt 42 is trained, are loosely mounted upon the shafts 35, and one pulley of each pair is 130



designed to be fixed to the shaft by pins 47, extending through the reduced ends of the pulley and the associated shaft, Fig. 6, while the other pulley of the pair is designed to remain loose on its shaft. The fast pulleys therefore constitute the driving-pulleys, while the loose pulleys are idlers. Each belt or conveyer 42 may therefore be driven in either of two opposite directions by fixing one or the other of its pulleys to the rotating shafts 35. In this manner the articles being assorted may be delivered to either side of the machine. If desired, one or all of said discharging belts or conveyers 42 may be extended some distance laterally from the machine, so as to carry the assorted articles to a distant place. One of the belts 42 is shown in Fig. 2 as thus extending from the machine. The larger articles, which do not pass through the spaces between the forwarding-ropes, are discharged from the last section upon a transverse conveyer-belt 50, like the belt 42, Figs. 1 and 2, which direct the said larger articles laterally away from the apparatus.

The apparatus may be provided with any number of assorting-sections desired. In some instances the length of the apparatus will make it desirable that each shaft 35 be made of two parts or sections disposed in different horizontal planes and connected at their ends by sprocket-belts 51, trained about sprocket-wheels on the adjacent ends of said sections. This arrangement is advantageous in a long apparatus, inasmuch as it avoids locating the ends of the shafts at the receiving end of the apparatus and the conveyer-belts 42, carried thereby, too far below the upper laps of the assorting-ropes, thus avoiding too great a distance of the drop for the smaller articles.

Certain of the bearings 16 for the shafts 15 of the lower rollers 14 are fixed stationary to the posts 10 of the outer frame. To provide means of taking up the slack of the forwarding-ropes, others of the bearings 16 for the shafts of said lower rollers are fastened to said outer frame by means permitting movement of the bearings and said rollers. A convenient construction by which this result is effected is shown in Fig. 4, wherein two adjacent bearings 16 are attached to an angle-bar 55, that is bolted to an adjacent post 10 of the outer frame. Said bearings 16 are attached to the said angle-bar by means of bolts 56, which extend through lugs of said bearings and through longitudinal slots 57 in the horizontal flange 58 of said angle-bar, the attachment being sufficiently loose to permit the bearings to move toward and from each other. A spiral contractile spring 59 is stretched between and is connected with said two bearings in a manner to draw them together, and thereby take up the slack of the ropes of the two sections associated with said

lower rollers. As herein shown, each spring 59 is attached at its ends to studs 60 60, that have screw-threaded engagement with said bearings 16. The articles being assorted which do not pass between the ropes of the first section are carried to the succeeding sections, the various sizes of said articles finding and falling through their proper spaces.

The articles to be assorted are delivered to the receiving end of the apparatus by means of a delivery-belt 61, that is trained about a roller 62, (shown in dotted lines in Fig. 1,) fixed to the driving-shaft 29a, said roller being located a distance over the receiving end of the forwarding-surface constituted by the ropes 12 of the first section.

The operation of my improved assorting apparatus will be obvious from the foregoing. The articles to be assorted are delivered in mass by the feed-belt 61 to the forwarding and assorting surface of the first section and are by the ropes constituting said surface advanced forwardly thereover. During the forward movement of said articles over said forwarding-surface the inner frame is vibrated laterally in a manner to facilitate the agitation of the articles and the smaller articles pass through the spaces between the ropes constituting the forwarding-surface of said first section. The articles which do not pass through the ropes of any given section are delivered successively to the next forward section. The largest articles of the mass are finally delivered by the forwarding-ropes of the last section to the transverse conveyer-belt 50 at the discharge end of the apparatus. The articles of assorted sizes are carried by the conveyer-belts 42 to either side of the machine desired in assorted lots and delivered to suitable receptacles placed to receive the same.

I claim as my invention—

1. In an assorting-machine for the purpose set forth, a plurality of traveling forwarding-surfaces, each formed with a plurality of closely-spaced, parallel, longitudinal, assorting-spaces through which articles to be assorted drop, said forwarding-surfaces being disposed in sections located successively one in advance of the other from the receiving to the discharge end of the apparatus, and the spaces of each succeeding section being wider than the last section.

2. In an assorting-machine, a plurality of traveling forwarding-surfaces having parallel, longitudinal, assorting-spaces through which articles to be assorted drop, said forwarding-surfaces being disposed in sections located successively one in advance of the other from the receiving to the discharge end of the apparatus, and the spaces of each succeeding section being wider than the last section, the several forwarding-surfaces sections being located in different horizontal planes, and the discharge end of each section being 13

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located above and in position to deliver articles to the receiving end of the next forwarding section.

3. In an assorting-machine for the purpose set forth, a plurality of assorting and forwarding surfaces, each formed with a plurality of closely-spaced, parallel spaces through which articles to be assorted pass, said surfaces being disposed in sections located successively one in advance of the other from one end of the machine to the other, the spaces of each succeeding section being wider than the last section, and means located beneath each traveling-surface section which receive the assorted articles which drop through said spaces, and convey the assorted articles away from the machine.

4. In an assorting-machine for the purpose set forth, a plurality of traveling, laterally-vibrating, forwarding-surfaces, each formed with a plurality of closely-spaced, parallel, longitudinal, assorting-spaces through which articles to be assorted drop, said forwarding-surfaces being disposed in sections located successively one in advance of the other from the receiving to the discharge end of the apparatus, and the spaces of each succeeding section being wider than the last section.

5. An assorting-machine including a forwarding-surface consisting of a plurality of elongated, transverse, grooved rollers and ropes trained about said rollers, the upper laps of which constitute forwarding-surfaces, and the spaces between the ropes constituting assorting-spaces through which the articles to be assorted drop by gravity, said rollers being arranged to dispose the said upper laps of the ropes one in advance of the other with the receiving end of each forwarding-surface in position to receive the articles being assorted from the forwarding-surface next in rear thereof.

6. An assorting-machine including a traveling forwarding-surface consisting of a plurality of ropes trained about rollers and spaced at gradually-widening distances apart from the receiving to the discharge end of the machine, and means for laterally vibrating said rollers and the ropes.

7. An assorting-machine for the purpose set forth comprising a frame, a plurality of rollers mounted transversely in said frame, and closely-spaced parallel forwarding-ropes trained about said rollers and disposed in sections, one in advance of the other, the upper laps of which constitute forwarding-surfaces, the ropes of the several sections being spaced gradually farther apart from the receiving to the delivery end of the machine to provide spaces of increasing width through which the articles to be assorted drop.

8. An assorting-machine comprising a frame, a plurality of rollers mounted transversely in said frame, and parallel forwarding-ropes trained about said rollers and dis-

posed in sections, one in advance of the other, the upper laps of which constitute forwarding-surfaces, the ropes of the several sections being spaced gradually farther apart from the receiving to the delivery end of the machine to provide spaces of increasing width through which the articles to be assorted drop, and means operating upon the articles being assorted to facilitate the delivery thereof through spaces between said ropes.

9. An assorting-machine comprising a main frame, a frame supported thereby, means for vibrating the latter frame, a plurality of rollers mounted transversely in said latter frame, and parallel forwarding-ropes trained about said rollers and disposed in sections one in advance of the other, the upper laps of which constitute forwarding-surfaces, the ropes of the several sections being spaced gradually farther apart from the receiving to the delivery end of the machine to provide spaces of increasing width through which the articles to be assorted drop.

10. An assorting-machine comprising a main frame, a frame supported thereby, means for vibrating the latter frame, a plurality of rollers mounted transversely in said latter frame, and parallel forwarding-ropes trained about said rollers and disposed in sections one in advance of the other, the upper laps of which constitute forwarding-surfaces, the ropes of the several sections being spaced gradually farther apart from the receiving to the delivery end of the machine to provide spaces of increasing width through which the articles to be assorted drop, and the upper laps of the ropes of the several sections being disposed in different planes, with the discharge ends thereof located above and in position to deliver the articles to the receiving ends of the other sections.

11. An assorting-machine comprising a stationary frame, a vibratory frame supported therein, transverse upper and lower rollers mounted respectively in the vibratory and stationary frames, means for vibrating the vibratory frame and the rollers mounted therein, and a plurality of parallel forwarding-ropes trained about the upper and lower rollers, the upper laps of which constitute forwarding-surfaces, said ropes and rollers being so disposed as to constitute a plurality of sections of forwarding-surfaces located one in advance of the other, and the ropes of the several sections being spaced at gradually-widening distances apart from the delivery to the discharge end of the machine.

12. An assorting-machine comprising a stationary frame, a vibratory frame supported therein, transverse upper and lower rollers mounted respectively in the vibratory and stationary frames, means for vibrating the vibratory frame and the rollers mounted therein, and a plurality of parallel forwarding-ropes trained about the upper and lower



rollers, the upper laps of which constitute forwarding-surfaces, said ropes and rollers being so disposed as to constitute a plurality of sections of forwarding-surfaces located one in advance of the other, the ropes of the several sections being spaced at gradually-widening distances apart from the delivery to the discharge end of the machine, and transverse conveying-belts located beneath the upper laps of the sections of the forwarding-ropes for conveying the assorted articles laterally away from the machine.

13. An assorting-machine comprising a main frame, a vibratory frame supported therein, upper and lower rollers carried respectively by said vibratory and main frame, said vibratory frame comprising longitudinal rails in which the upper rollers are mounted and transverse shafts attached thereto and extending outwardly through and having sliding engagement with the main frame, ropes trained about said rollers, the upper laps of which constitute traveling forwarding-surfaces, and spaced gradually farther apart from the receiving to the discharge end of the machine, and opposing cams acting upon said transverse shafts for operating said vibratory frame.

14. An assorting-machine comprising a traveling forwarding and assorting surface provided with spaces through which the articles to be assorted drop, said spaces increasing in width from the receiving to the dis-

charge end of the machine, conveyer-belts extending transversely beneath the forwarding-surfaces and adapted to receive the articles that drop through the spaces of said forwarding-surface, and means whereby said belts may be driven toward one side of the machine or the other as desired.

15. An assorting-machine comprising a traveling forwarding and assorting surface provided with spaces through which the articles to be assorted drop, said spaces increasing in width from the receiving to the discharge end of the machine, conveyer-belts extending transversely beneath the forwarding-surfaces, pulleys about which said conveyer-belts are trained, rotative shafts upon which said pulleys are mounted, said shafts rotating in opposite directions, and means for detachably fixing said pulleys to said shafts, designed to fix one of the pulleys associated with each belt to its shaft and to release the other pulley from its shaft and vice versa, whereby the belts may be made to travel toward either side of the machine.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 11th day of December, A. D. 1905.

FRIDOLF F. BACKSTROM.

Witnesses:

W. L. HALL,

G. R. WILKINS.

**Defendant's Exhibit "L"—Letters Patent to D. A.  
& A. B. Banker for Machines for Assorting  
Potatoes.**

[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "L." Filed  
July 12, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

D. A. &amp; A. B. BANKER.

Machines for Assorting Potatoes.

No. 147,301

Patented Feb. 10. 1874.

Fig. 1.

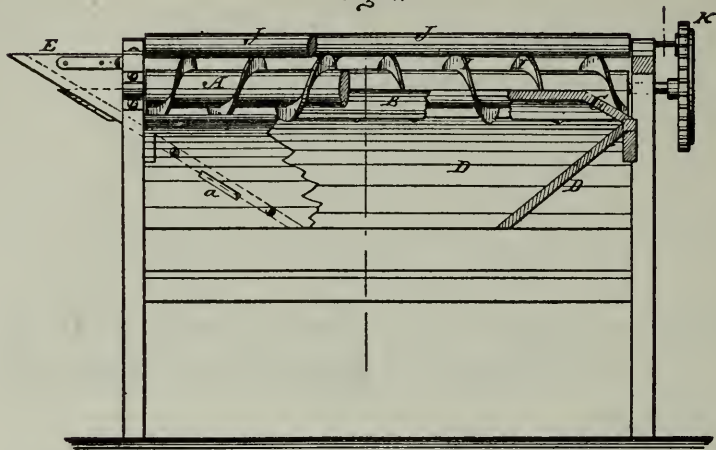
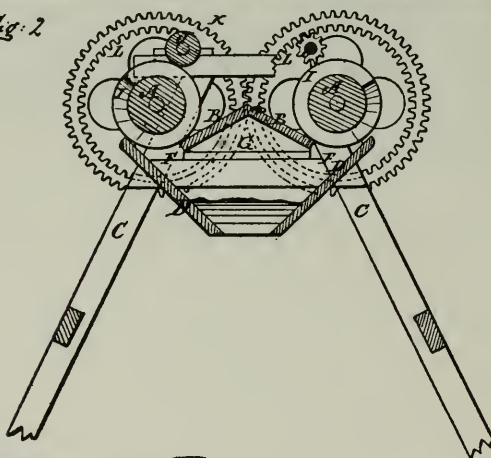


Fig. 2.



WITNESSES:

*Chas. Nida*  
*Orlando*

INVENTOR:

*D. A. Banker*  
*A. B. Banker*

BY

*Wm. H. 2*  
 ATTORNEYS.



## UNITED STATES PATENT OFFICE.

DAVID A. BANKER AND AMOS B. BANKER, OF SCHAGHTICOKE,  
NEW YORK.

## IMPROVEMENT IN MACHINES FOR ASSORTING POTATOES.

Specification forming part of Letters Patent No. 147,301, dated February 10, 1874; application filed December 20, 1873.

*To all whom it may concern:*

Be it known that we, DAVID A. BANKER and AMOS B. BANKER, of Schaghticoke, in the county of Rensselaer and State of New York, have invented a new and Improved Machine for Assorting Potatoes, of which the following is a specification.

Our machine consists of one or more long rollers or revolving shafts, a hopper, assorting-board, and grading-chutes so combined and arranged that the potatoes being shoveled into the hopper at one end, and caused to run along the assorting-board and the roller or rollers, the smaller ones will escape between the roller and assorting-board, while the larger ones will be discharged at the end.

The distance between the roller or rollers and the assorting-board increases from the head toward the tail, and the potatoes, escaping through the space, varying in size in the same measure, so that they can be separated into two or more grades by suitable partitions in the hoppers or other receptacles below.

In practice, the assorting-board will be adjustable toward and from the roller, so as to change the grade at will. In this example, the potatoes are caused to pass along the assorting-board and roller by a spiral flange on the latter; but the same result may be produced by arranging them with sufficient descent for the movement to be affected by gravity.

Besides the assorting-rollers, we have, in this example, provided guard-rollers in connection with them, for preventing the potatoes from escaping over the top of the assorting-rollers, which they tend to do to some extent, in consequence of the action of the assorting-rollers on them, by turning in the direction necessary to prevent crushing the potatoes against the assorting-board; but the guard-rollers will not be used in all cases.

Figure 1 is a longitudinal sectional elevation of a double machine constructed according to our improvement; and Fig. 2 is a transverse sectional elevation taken on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the assorting-rollers, and B the assorting-boards, which, in this example, are arranged horizontally on a suitable frame,

C, with a hopper, E, at one end, into which the potatoes are supplied to be fed along between the boards and said rollers for the small ones to escape through the spaces F, which gradually widen from the head to the tail, when the large ones pass off through the spout G to a suitable receptacle while the small ones fall into the hopper D, which may be divided into two or more parts, for grading the small potatoes falling into it. The assorting-rollers are provided with a spiral flange, I, in this case, to cause the potatoes to move along them; but, as before stated, the same may be done without the flanges, by arranging for sufficient descent for the action of gravity. Above the assorting-roller is a guard-roller, J, which is to prevent the potatoes escaping over the assorting-rollers, which are of necessity caused to turn upward from the assorting-board, to prevent crushing the potatoes against the board. The guard-rollers are for the same reason arranged to turn so as to throw the potatoes from the assorting-rollers, as they would draw them in and crush them if they turned the other way.

In this machine, the two assorting-rollers are geared together by the wheels K, and the guard-rollers gear with the internal rims L of said wheels; but both may be geared in any other approved way.

A hand-crank will suffice for turning the rollers; but other contrivances may be used.

The hopper sides or other chutes over which the potatoes pass may have slats *a*, or be provided with riddles or screens of any kind, for separating the particles of earth and other matters from the potatoes.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of a roller and an assorting-board, substantially in the manner herein described, for assorting potatoes.

2. The combination of the guard-roller J with the spirally flanged or grooved assorting-roller A and assorting-board B, substantially as specified.

DAVID A. BANKER.  
AMOS B. BANKER.

Witnesses:

ALFONZO MERRELL,  
E. MORGAN CONGDON.

**Defendant's Exhibit "M"—Letters Patent to R. M.  
Widney for Fruit Grader and Separator.**

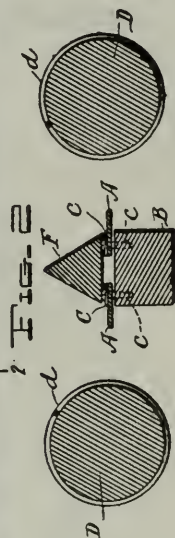
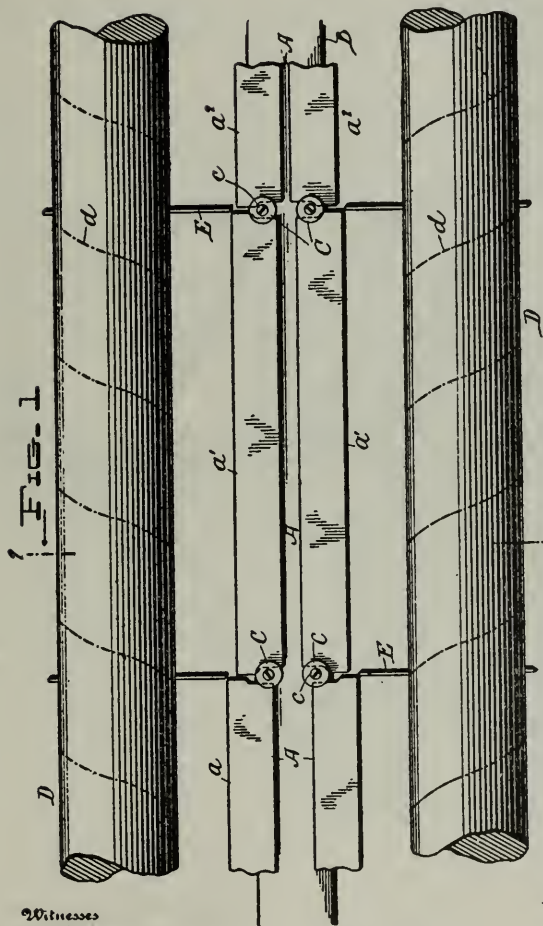
[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "M." Filed  
July 12, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

No. 788,618.

PATENTED MAY 2, 1906.

R. M. WIDNEY.  
FRUIT GRADER AND SEPARATOR.  
APPLICATION FILED JAN. 2, 1903.

3 SHEETS—SHEET 1.



Witnesses

*D. J. Garrison*

*W. J. Norton*

By

Inventor

*Robert M. Widney*

*Britton Gray*  
his attorney





No. 788,618.

Patented May 2, 1905.

## UNITED STATES PATENT OFFICE.

ROBERT M. WIDNEY, OF FERNANDO, CALIFORNIA.  
FRUIT GRADER AND SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 788,618, dated May 2, 1905.

Application filed January 2, 1903. Serial No. 137,618.

*To all whom it may concern:*

Be it known that I, ROBERT M. WIDNEY, a citizen of the United States, residing at Fernando, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Fruit Graders and Separators, of which the following is a specification.

This invention relates to that class of fruit-graders having open-bottomed passages or ways increasing in width step by step, whereby fruit, nuts, or other articles may be graded in size or separated into lots or uniform sizes in traversing from the head to the tail end of the machine.

One object of my invention is to so organize a machine of this character as to provide for the independent adjustment in width of each grading-section of a grading-passages.

A further object of the invention is to so organize a machine of this character as to adapt the grading passages to the handling of products widely differing in size—as, for instance, oranges and olives.

Further objects of the invention will appear in the ensuing specification and will be pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view showing a part of two grading-passages and parts of three grading-sections in each. Fig. 2 is a section on line 2 2 of Fig. 1, showing in addition a dividing-rib F between the grading-passages. Fig. 3 is a perspective view, partly in section, of a machine embodying my improvements. Fig. 4 is a perspective view, on a larger scale, showing the guiding hood or apron in position at a discharge-outlet of the hopper.

The same characters of reference are applied to identical parts in the several figures of the drawings.

The operative parts of the apparatus are carried by a frame consisting of side rails 1 and end rails 2, supported at a convenient height by legs or standards 3, braced by strips 4 of any suitable construction.

Mounted to rotate in bearings supported by the end rails 2 of the frame is one or more cylindrical rollers D, the number depending on the intended capacity of the machine. Eight

of such rollers are shown in Fig. 3. These rollers D are provided each with a spirally-disposed rib or vane *d*, and arranged at a suitable distance from and parallel with the working face or side of each roll D is a bar B. 55

Secured to or upon each bar B, which I shall term "grade-bars," are grade-plates A, the working edges of which are parallel with the working side of an adjacent roll D, the space between the plates and roll constituting 60 a grading passage or way increasing in width stepwise from the head to the tail of the machine. These plates are formed of longitudinal sections *a a'* *a*<sup>2</sup>, &c., and are adjustably secured upon or to the grade-bar B to the end 65 that each plate may be independently adjusted nearer to or farther from the roll, thus providing for a grading-passages that may be widened or narrowed equally throughout its length or that may be widened or narrowed 70 to a greater extent opposite one section than at other points.

In Figs. 1 and 2 I have shown two rolls and an intervening grade-bar B, having secured to its upper surface and projecting from opposite sides thereof two grade-plates, forming, with the adjacent rolls, two grading-passages having three steps or widths. As shown, each plate is composed of three sections *a*, *a'*, and *a*<sup>2</sup>, these being secured to the grade-bar 80 for independent adjustment by the washers C, overlapping end edges of the adjacent sections, and screws *c* passing through the washers between the ends of the sections and into the bar. It will be apparent that other means 85 of securing the sections may be used; but I have adopted this means for economy in construction and as affording great facility for adjustments of the sections or for the removal of any one or more sections and the replacement thereof by one of different size. 90

Beneath the rolls D and grade-bar B are inclined chutes H to discharge the graded or sized material into a suitable receptacle placed at the lower end thereof, these chutes being of 95 course of that grading-section of the passage immediately above it, and said chutes are separated from each other by partitions E. These partitions are adjustable horizontally toward and from the grade-bar in order that their in- 100



ner vertical edges may be positioned properly with relation to the tail ends of the respective sections  $a$   $a'$   $a^2$  of the grading-plate A, as said sections are adjusted laterally on the grade-bar to form a wider or narrower grading-passage. As shown, said partitions E are slidably mounted at top in grooves of the framing and guided and supported laterally by the adjacent edges of the inclined bottoms of adjacent chutes.

Above the grade-bars and their grading-plates triangular bars F are secured, these, in conjunction with the rollers D, forming the limits or walls of the grading-passages, as shown in Figs. 2 and 3.

At the head end of the machine a hopper K is supported by the frame, having an inclined bottom to insure the feed of material to the feed-openings therein, these, as shown, being arranged one above each adjacent pair of grading-passages of the machine and being adapted to be closed by gates  $k$ , vertically movable in guides  $k'$ , secured at either side of said feed-openings.

To regulate the feed of material to the grading-passages, I secure to the gate-guides triangular hoods L, the vertical sides of which extend above and in line with the tops of the rollers D appropriate to the several feed-openings, the upper wall of each hood being inclined, as shown. These hoods not only limit the feed of material to the capacity of the grading-passages, but their vertical side walls prevent the fruit from rolling out of said passages over the tops of the rolls.

Journalled in bearings secured to the side rails 1 of the frame is a shaft M, adapted to be rotated by means of a belt (not shown) and belt-pulleys  $m$   $m'$ , carried on one end of said shaft, or by a fly-wheel carried on the other end thereof. The shaft is provided beneath the hopper with beveled gear or friction wheels  $n'$ , arranged in operative contact with similar wheels D', mounted on the rollers D, this arrangement providing for the rotation of the rollers to feed the material along the grading-passages.

As shown, the machine is fitted with eight rollers D, and four grade-bars B are employed in connection therewith to provide eight grading-passages, so organized as to be employed to grade two or more different products—say oranges and olives—by dividing the hopper by a central partition, as shown, and fitting the grade-bars with plates of a width adapted to the product.

The inclined faces of the bars F and the upward motion of the spiral vanes  $d$  of rollers D will tend to maintain the long axis of the fruit or nuts vertical, and thus present the short axis thereof to the grade-opening, thus grading the fruit by its smallest diameter.

I claim as my invention—

1. In a machine for grading fruit, the combination with a revoluble cylindrical roller having spiral vanes, and a fixed support parallel to said roller, of a grading-plate composed of longitudinal sections each independently adjustably secured to said fixed support.

2. In a machine for grading fruit, the combination with a revoluble cylindrical roller having spiral vanes and a fixed support parallel thereto carrying an adjustable step-by-step grading-plate, these elements forming a grading-passage, of adjustable partitions beneath the end of each grading-division of the grading-passage.

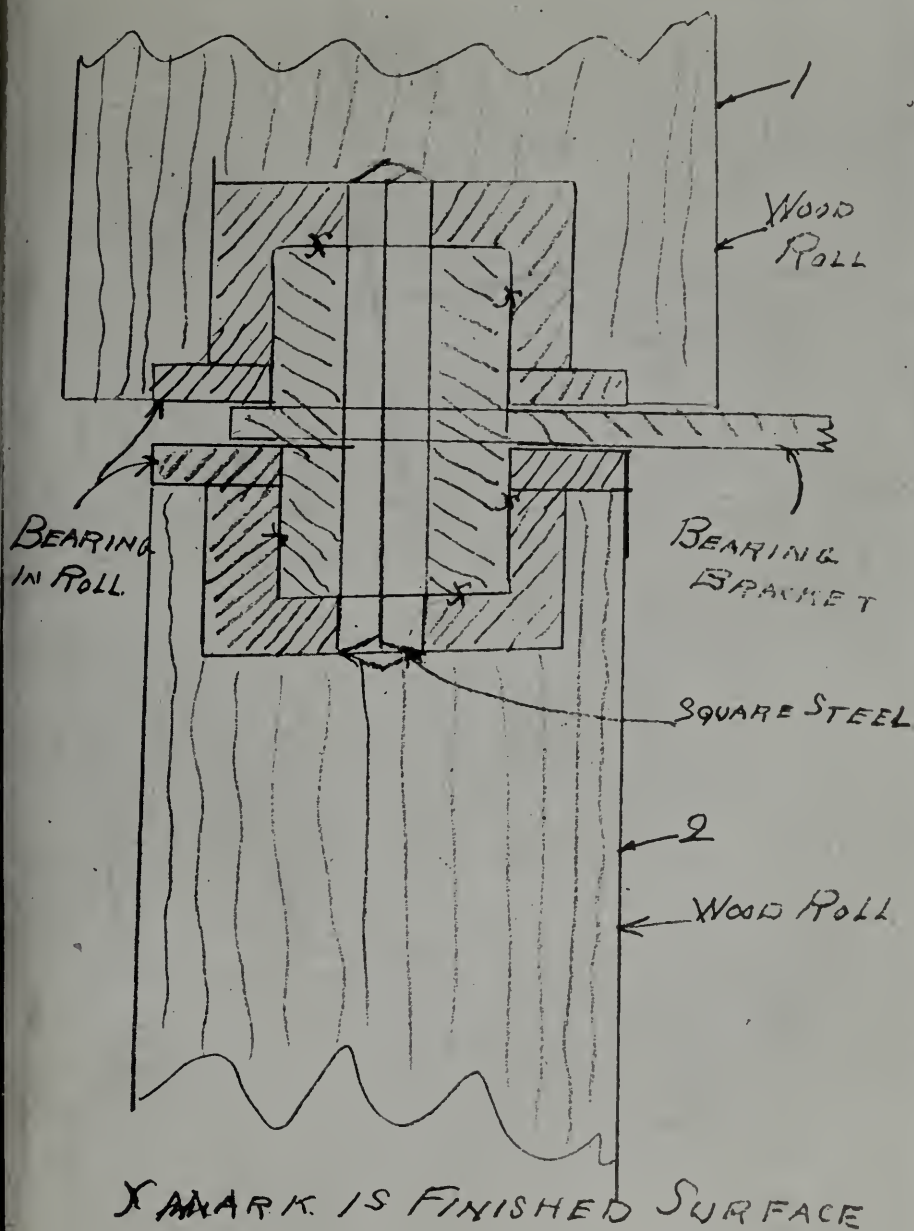
3. In a fruit-grading machine, the combination of two revoluble cylindrical rollers journaled parallel to each other and having spiral vanes of opposite pitch, a grade-bar secured between and parallel with said rollers, adjustable grade-plates carried thereby, one projecting toward each roller, a removable triangle bar secured above the adjacent edges of the grade-plates, a hopper having a feed-opening, and a hood secured above said openings with the lower edges of its side walls closely proximate to the upper central parts of the rollers.

ROBERT M. WIDNEY.

Witnesses:

SAMUEL R. MACLAY,  
DECATOR E. WELLCOME.

Defendant's Exhibit "N."



Defendant's Exhibit "O."

[Endorsed]: Stebler vs. Porterville Cit. Assn.  
No. A-44, N. D. Defts. Exhibit No. "N." Filed  
July 13, 1916. Wm. M. Van Dyke, Clerk. By Les-  
lie S. Colyer, Deputy Clerk.

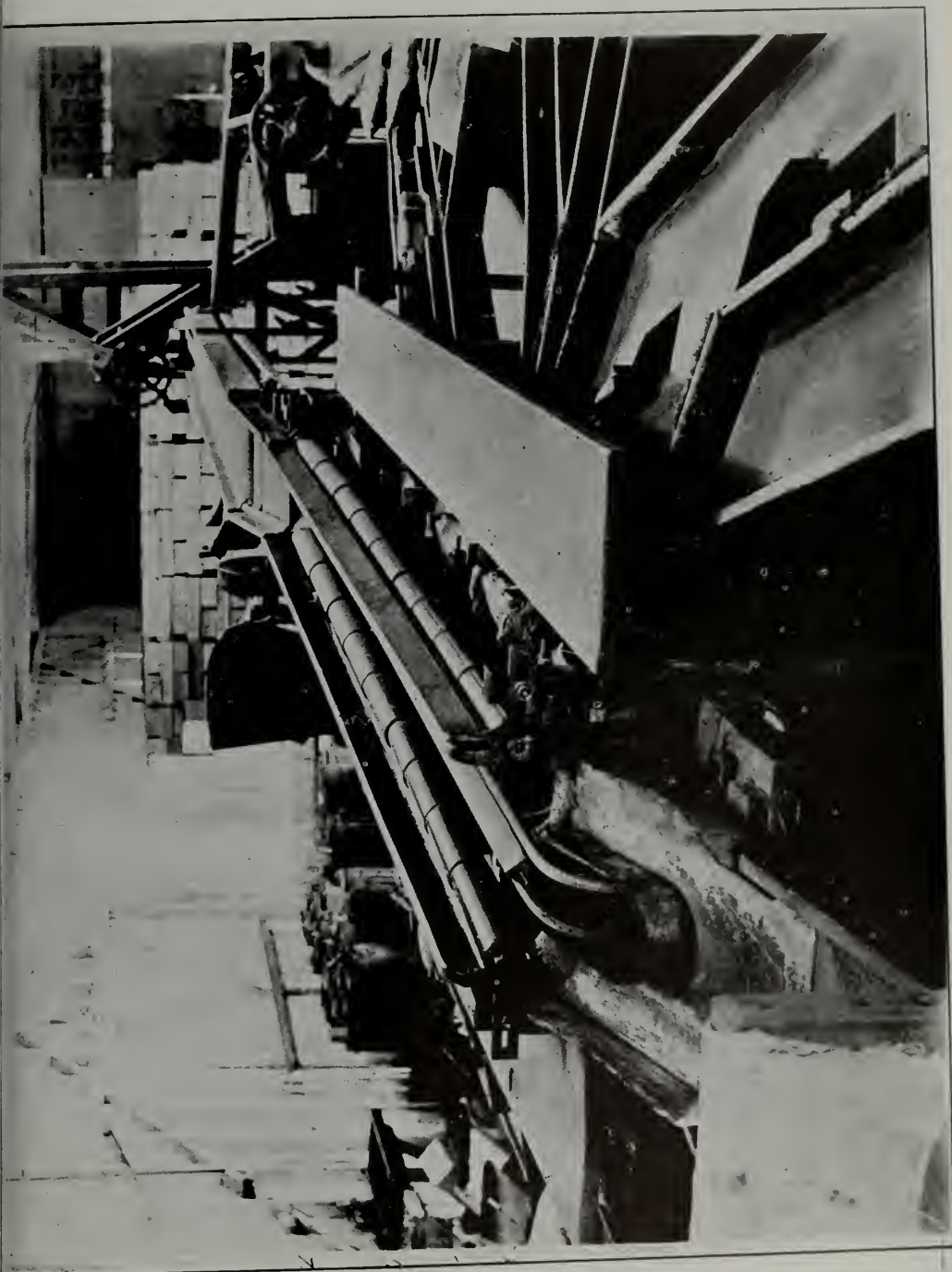


Defendant's Exhibit "O."

[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Defts. Exhibit No. "O." Filed July 14, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.

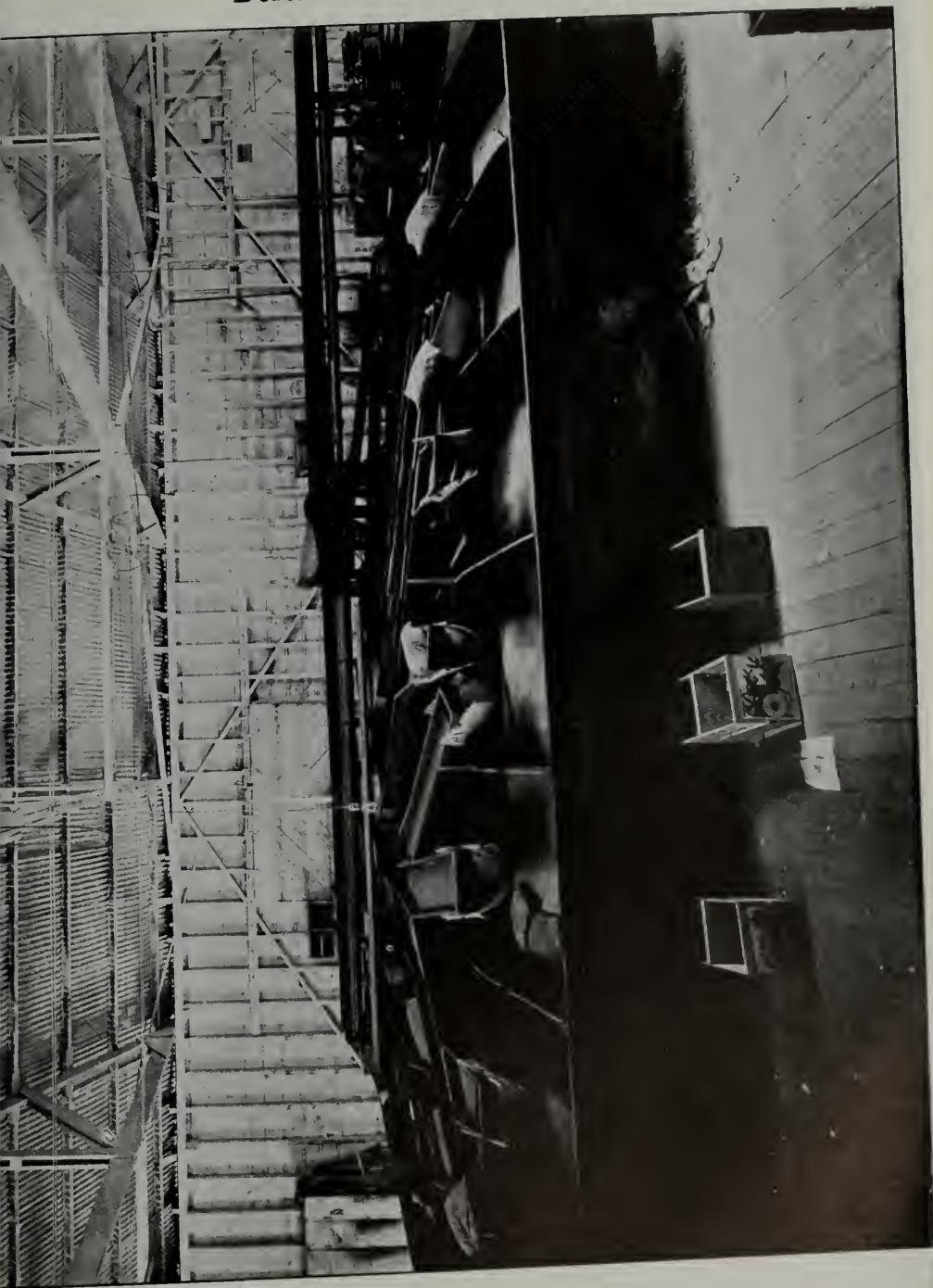


**Defendant's Exhibit "P."**



[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Defts. Exhibit No. "P." Filed July 14, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.

**Defendant's Exhibit "P."**



[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Defts. Exhibit No. "P'." Filed July 14, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.



**Defendant's Exhibit "Q."**





[Endorsed]: Stebler vs. Porterville Cit. Assn. No. A-44, N. D. Exhibit No. "Q." Filed July 14, 1916. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk.

*United States District Court, Southern District of  
California, Northern Division.*

IN EQUITY—A-44.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Petition for Order Allowing Appeal.**

The Porterville Citrus Association, defendant in the above-entitled cause, conceiving itself aggrieved by the interlocutory order and decree filed and entered on the 20th day of November, A. D. 1916, in the above-entitled cause, whereby an injunction was granted against this defendant, now comes by N. A. Acker, Esq., its solicitor and counsel, and petitions said Court for an order allowing it, Porterville Citrus Association, to prosecute an appeal from said interlocutory order and decree to the Honorable the United States Circuit Court of Appeals for the Ninth Circuit, under and according to the laws of the United States in that behalf made and provided; and that a transcript of the record, testimony, exhibits and all proceedings and papers upon which said interlocutory order and decree was made, duly authenticated, may be sent to the United States Court of Appeals for the Ninth Circuit; and also that an order be made fixing the amount of security which defendant, Porterville Citrus Association shall give and furnish upon such appeal, and that upon giving such security, all further proceedings in this court

excepting the injunction be suspended and stayed until the determination of said appeal by the United States Circuit Court of Appeals for the Ninth Circuit. And now, at the time of filing this Petition for Order Allowing Appeal, the said Porterville [869] Citrus Association, petitioner, files its Assignment of Errors, setting up separately and particularly, each error asserted and intended to be urged in the United States Circuit Court of Appeals for the Ninth Circuit.

And your petitioner will ever pray.

PORTERVILLE CITRUS ASSOCIATION.

By N. A. ACKER,  
Solicitor for Defendant.

[Endorsed]: No. A-44. U. S. District Court, Southern District of California, Northern Division. Fred Stebler, Plaintiff, vs. Porterville Citrus Association, Defendant. Petition for Order Allowing Appeal. Filed Nov. 20, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Nicholas A. Acker, Attorney at Law, Foxcroft Building, 68 Post Street, San Francisco, Cal., for Defendant. [870]

*In the United States Circuit Court of Appeals for  
the Ninth Circuit.*

IN EQUITY.

PORTERVILLE CITRUS ASSOCIATION,  
Appellant,

vs.

FRED STEBLER,  
Appellee.

**Assignment of Errors.**

Now comes Porterville Citrus Association, the defendant in the cause of the court below, entitled Fred Stebler, Plaintiff, vs. Porterville Citrus Association, Defendant, No. A-44, in the United States District Court, Southern District of California, Northern Division, and appellant herein, by N. A. Acker, Esq., its solicitor and counsel, and says, that in the record and proceedings in said cause in the court below, there was manifest error, and it particularly specifies the following as the errors upon which it will rely, and which it will urge upon its appeal in the above-entitled court.

I.

That the District Court of the United States for the Southern District of California, Northern Division, erred in holding that United States letters patent #943,799, issued December 21, 1909, to Fred Stebler for DISTRIBUTING APPARATUS, mentioned in the Bill of Complaint in this cause, are good and valid in law, particularly as to Claims 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15, and 19 thereof.

## II.

That the United States District Court for the Southern District of California, Northern Division, erred in holding that Fred Stebler was the original and first inventor of the inventions [871] described and claimed in and by said letters patent, and more particularly as to claims 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15, and 19.

## III.

That the United States District Court for the Southern District of California, Northern Division, erred in holding that the defendant, Porterville Citrus Association, has infringed upon said letters patent #943,799, and more particularly Claims 1, 2, 3, 4, 6, 7, 8, 11, 14, 15 and 19, or upon any of its said mentioned claims, and upon the exclusive rights of the complainant, by making, using and selling the inventions claimed and patented in and by any and all of the said mentioned claims 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15 and 19 of said letters patent #943,799.

## IV.

That the District Court of the United States for the Southern District of California, Northern Division, erred in holding each and all of the allegations in the Bill of Complaint in this cause to be true, with respect to said letters patent #943,799 and more particularly as to claims 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15 and 19 thereof.

## V.

That the United States District Court for the Southern District of California, Northern Division, erred in holding that a perpetual injunction be issued



in this cause against the defendant, its officers, agents, servants and employees, enjoining and restraining them and each of them from making, using or selling any apparatus embodying and containing any of the inventions or improvements described and claimed in said letters patent #943,799, and more particularly as to claims 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15 and 19 thereof.

## VI.

That the United States District Court for the Southern District of California, Northern Division, erred in holding [872] the defendant, Porterville Citrus Association to be liable for and directing the complainant, Fred Stebler, to recover of and from it, the profits, gains and advantages which the defendant has received or made from the said infringement, and also the damages which complainant has sustained thereby, by reason of the alleged infringement of United States letters patent #943,799 and particularly as to Claims 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15 and 19 thereof.

## VII.

That the United States District Court for the Southern District of California, Northern Division, erred in holding that United States letters patent #943,799, mentioned in the Bill of Complaint in this case, disclosed a patentable combination or invention at all, particularly as to claims 1, 2, 3, 4, 5, 6, 7, 8, 11, 14, 15 and 19 thereof.

## VIII.

That the United States District Court for the Southern District of California, Northern Division,

erred in holding that the defendant Porterville Citrus Association has infringed upon reissue letters patent #12,297 and more particularly Claims 1 and 10 thereof.

IX.

That the United States District Court for the Southern District of California, Northern Division, erred in not dismissing the Bill of Complaint in this cause.

X.

That the United States District Court for the Southern District of California, Northern Division, erred in holding that the complainant is entitled to recover any costs herein from the defendant.

All of which is respectfully submitted.

MID-CALIFORNIA CITRUS ASSOCIATION.

By N. A. ACKER,

Its Solicitor and Counsel. [873]

[Endorsed]: A-44—Eq. U. S. Circuit Court of Appeals for the Ninth Circuit. In Equity. Porterville Citrus Association, Appellant, vs. Fred Stebler, Appellee. Assignment of Errors. Filed Nov. 20, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Nicholas A. Acker, Attorney at Law, Foxcroft Building, 68 Post Street, San Francisco, Cal., for Appellant. [874]

*United States District Court, Southern District of  
California, Northern Division.*

IN EQUITY—A-44.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Order Allowing Appeal.**

Upon the filing of the Petition for Order Allowing Appeal, and the filing of the Assignment of Errors accompanying the same, on motion of N. A. Acker, Esq., solicitor for Porterville Citrus Association, defendant in the above-entitled cause, it is ordered that an appeal to the United States Circuit Court of Appeals for the Ninth Circuit from the interlocutory order and decree granting an injunction against said defendant, filed and entered herein on the 20th day of November, A. D. 1916, be and the same is hereby allowed; and that a transcript of the record, exhibits and all proceedings and papers herein be forthwith transmitted to said United States Circuit Court of Appeals for the Ninth Circuit, and it is further ordered that the said Porterville Citrus Association give a bond in the sum of Two Hundred Fifty 00/100 (\$250) Dollars, with good and sufficient security to be approved by the Court.

OSCAR A. TRIPPET,

District Judge.

November 20th, 1916. [875]

[Endorsed]: No. A-44. U. S. District Court, Southern District of California, Northern Division. Fred Stebler, Plaintiff, vs. Porterville Citrus Association, Defendant. Order Allowing Appeal. Filed Nov. 20, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Nicholas A. Acker, Attorney at Law, Foxcroft Building, 68 Post Street, San Francisco, Cal., for Defendant. [876]

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*United States District Court, Southern District of California, Northern Division.*

IN EQUITY—A-44.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Bond on Appeal.**

Know All Men by These Presents: That the United States Fidelity & Guaranty Company, a corporation existing under and by virtue of the laws of the State of Maryland, and duly licensed to transact business in the State of California, is held and firmly bound unto Fred Stebler, plaintiff in the above-entitled court, in the penal sum of Two Hundred and Fifty (\$250) Dollars, to be paid to Fred Stebler, his heirs, assigns and legal representatives, for which payment well and truly to be made the Fidelity and Deposit Company of Maryland binds itself, its successors and assigns, firmly by these presents.

Sealed with corporate seal and dated this 20th day of November, 1916.

The condition of the above obligation is such that whereas the Porterville Citrus Association, defendant in the above-entitled suit, is about to take an appeal to the United States Circuit Court of Appeals for the Ninth Circuit to reverse the interlocutory order and decree made, rendered and entered on the 20th day of November, 1916, by the United States District Court for the Southern District of California, Northern Division, in the above-entitled cause. [877]

NOW, THEREFORE, if the above-named appellant shall prosecute said appeal to effect, and answer all costs which may be adjudged against it, if it fails to make good its appeal, then this obligation shall be void; otherwise to remain in full force and effect.

UNITED STATES FIDELITY & GUAR-  
ANTY COMPANY,

By W. H. SCHRODER, (Seal)

Its Attorney in Fact.

Approved:

TRIPPET,  
District Judge.

State of California,  
County of Los Angeles,—ss.

On this 20th day of November, in the year one thousand nine hundred and sixteen, before me, Hallie D. Winebrenner, a notary public in and for said county and State, residing therein, duly commissioned and sworn, personally appeared W. H. Schroder, known to me to be the duly authorized



attorney in fact of the United States Fidelity and Guaranty Company, and the same person whose name is subscribed to the within instrument as the attorney in fact of said company, and the said W. H. Schroder duly acknowledged to me that he subscribed the name of the United States Fidelity and Guaranty Company thereto as principal and his own name as attorney in fact.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this Certificate first above written.

[Seal]            HALLIE D. WINEBRENNER,  
Notary Public in and for Los Angeles County, State  
of California. [878]

[Endorsed]: No. A-44. U. S. District Court, Southern District of California, Northern Division. Fred Stebler, Plaintiff, vs. Porterville Citrus Association, Defendant. Bond on Appeal. Service of the within — admitted this — day of —, A. D. 191—. —, for —. Filed Nov. 20, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Nicholas A. Acker, Attorney at Law, Foxcroft Building, 68 Post Street, San Francisco, Cal., for Defendant. [879]

*In the United States District Court, Southern District of California, Northern Division.*

IN EQUITY—A-44.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Praecipe for Record on Appeal.**

To the Clerk of the Above-entitled Court:

You will please prepare and certify to the Clerk of the United States Circuit Court of Appeals, for the Ninth Circuit, copies of the following documents, the same constituting Transcript on Appeal to said Circuit Court of Appeals for the Ninth Circuit, viz.:

Bill of Complaint.

Answer to Bill.

Amended Answer of Defendant.

Depositions Taken at Citra, Florida.

Depositions Taken at Hanford, California.

Testimony of Witnesses Taken in Court During  
Trial of Cause.

Opinion of the Court.

Decree of the Court.

Petition for Order Allowing Appeal.

Assignment of Errors.

Order Allowing Appeal.

Bond on Appeal.

Dated San Francisco, Calif., November 28th, 1916.

PORTERVILLE CITRUS ASSOCIATION,

By N. A. ACKER,

Its Solicitor. [880]

[Endorsed]: No. A-44. U. S. District Court, Southern District of California, Northern Division. Fred Stebler, Plaintiff, vs. Porterville Citrus Association, Defendant. Praeceptum. Filed Dec. 1, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Nicholas A. Acker, Attorney at Law, Foxcroft Building, 68 Post Street, San Francisco, Cal., for Defendant. [881]

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*United States District Court, Southern District of California, Northern Division.*

IN EQUITY—A-44.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Amended Praeceptum for Record on Appeal.**

To the Clerk of the Above-entitled Court:

In addition to the matters set forth in the Praeceptum heretofore filed, you will please certify to the Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, the following, as portion of the Transcript on Appeal to said Circuit Court of Appeals for the Ninth Circuit, viz.:

Printed copies of United States letters patent introduced in evidence in connection with the deposi-

tions taken at Citra, Florida, and the depositions taken at Hanford, California, and introduced in evidence during the trial of the case at Los Angeles, California, and all other documentary exhibits introduced in evidence and all physical exhibits introduced in evidence.

Dated San Francisco, California, December 4th, 1916.

PORTERVILLE CITRUS ASSOCIATION,

By N. A. ACKER,

Its Solicitor.

[Endorsed]: A.-44. U. S. District Court, Southern District of California, Northern Division. Fred Stebler, Plaintiff, vs. Porterville Citrus Association, Defendant. Amended Praecipe. Filed Dec. 6, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Nicholas A. Acker, Attorney at Law, Foxcroft Building, 68 Post Street, San Francisco, Cal., for Defendant. [882]

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*In the United States District Court, Southern District of California, Northern Division.*

IN EQUITY—A-44.

FRED STEBLER,

Plaintiff,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Amended Praecipe for Record on Appeal.**

To the Clerk of the Above-entitled Court:

In addition to the matters set forth in the Praecipe

and the Amended Praecipe heretofore filed, you will please certify to the clerk of the United States Circuit Court of Appeal for the Ninth Circuit the following, as constituting a portion of the Transcript on Appeal, to said Circuit Court of Appeals for the Ninth Circuit, viz.:

The Conclusions and Order of Court announced on the first day of August, 1916, in cases A-44 and A-50, combined for final hearing, re Fred Stebler vs. Porterville Citrus Association; the same to appear in the record as supplemental to the opinion of the Court, mentioned in the original praecipe.

Dated San Francisco, Calif., December 9th, 1916.

PORTERVILLE CITRUS ASSOCIATION,

By N. A. ACKER,

Its Solicitor.

[Endorsed]: No. A-44. In the U. S. District Court, Southern District of California, Northern Division. Fred Stebler, Plaintiff, vs. Porterville Citrus Association, Defendant. Amended Praecipe. Filed Dec. 12, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Nicholas A. Acker, Attorney at Law, Foxcroft Building, 68 Post Street, San Francisco, Cal., for Defendant.  
[883]



*In the District Court of the United States of America, in and for the Southern District of California, Northern Division.*

No. A-44—IN EQUITY.

FRED STEBLER,

Complainant,

vs.

PORTERVILLE CITRUS ASSOCIATION,

Defendant.

**Certificate of Clerk U. S. District Court to  
Transcript of Record.**

I, Wm. M. Van Dyke, Clerk of the District Court of the United States of America, in and for the Southern District of California, do hereby certify the foregoing eight hundred and eighty-three typewritten pages, numbered from 1 to 883, inclusive, and comprised in two volumes, to be a full, true and correct copy of the Bill of Complaint, Answer of Defendant, Amended Answer of Defendant, Minute Order of August 1, 1916, Decree of the Court, Depositions taken at Citra, Florida, Depositions taken at Hanford, California, Testimony of Witnesses taken in court during trial, Documentary Exhibits, Petition for Order Allowing Appeal, Assignment of Errors, Order Allowing Appeal, Bond on Appeal and Praecipes for Record on Appeal in the above and therein entitled cause, and that the same together constitute the Record on Appeal in said cause as specified in the said Praecipes filed in my office on behalf of the appellant by its solicitor of record.

I do further certify that the cost of the foregoing record is \$344.85, the amount whereof has been paid me by the Porterville Citrus Association, the appellant herein.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed the seal of the District Court of [884] the United States of America, in and for the Southern District of California, this 28th day of March, in the year of our Lord one thousand nine hundred and seventeen, and of our Independence the one hundred and forty-first.

[Seal] WM. M. VAN DYKE,  
Clerk of the District Court of the United States of  
America, in and for the Southern District of  
California. [885]

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[Endorsed]: No. 2960. United States Circuit Court of Appeals for the Ninth Circuit. Porterville Citrus Association, a Corporation, Appellant, vs. Fred Stebler, Appellee. Transcript of Record. Upon Appeal from the United States District Court for the Southern District of California, Northern Division.

Filed March 29, 1917.

F. D. MONCKTON,  
Clerk of the United States Circuit Court of Appeals  
for the Ninth Circuit.

By Paul P. O'Brien,  
Deputy Clerk.

*In the United States Circuit Court of Appeals, for  
the Ninth Circuit.*

PORTERVILLE CITRUS ASSOCIATION,  
Appellant,

vs.

FRED STEBLER,

Appellee.

**Order Extending Time to and Including February  
1, 1917, to File Record and Docket Cause.**

Good cause appearing therefor, it is hereby ordered that the time for filing the record and docketing the cause in the United States Circuit Court of Appeals in the above-entitled cause be extended to and including the 1st day of February, 1917.

Los Angeles, California, December 13, 1916.

TRIPPET,  
District Judge.

[Endorsed]: No. ——. United States Circuit Court of Appeals for the Ninth Circuit. Porterville Citrus Association, Appellant, vs. Fred Stebler, Appellee. Order Extending Time to File Record and Docket Cause to February 1st, 1917. Filed Dec. 14, 1916. F. D. Monckton, Clerk.

*In the United States Circuit Court of Appeals, for  
the Ninth Circuit.*

PORTERVILLE CITRUS ASSOCIATION,  
Appellants,

vs.

FRED STEBLER,

Appellee.

**Order Extending Time to and Including April 1,  
1917, to File Record and Docket Cause.**

Good cause appearing therefor, it is hereby ordered that the time for filing the record and docketing the cause in the United States Circuit Court of Appeals in the above-entitled cause be extended to and including the 1st day of April, 1917.

Los Angeles, California, January 30, 1917.

TRIPPET,

District Judge.

[Endorsed]: No. ——. United States Circuit Court of Appeals for the Ninth Circuit. Porterville Citrus Association, Appellants, vs. Fred Stebler, Appellee. Order Extending Time to File Record and Docket Cause to and Incl. April 1, 1917. Filed Feb. 3, 1917. F. D. Monckton, Clerk.

No. 2960. United States Circuit Court of Appeals for the Ninth Circuit. Porterville Citrus Assn., a Corporation, vs. Fred Stebler. Two Orders Under Rule 16 Enlarging Time to April 1, 1917, to File Record Thereof and to Docket Case. Refiled Mar. 29, 1917. F. D. Monckton, Clerk.